

has also restricted the industry supply of Live MMA Events generally, by restricting the output of other MMA promoters.³⁹² Zuffa's could not have restricted the supply of Live MMA Events in the absence of substantial market power.

4. Direct Evidence of Power to Exclude Rivals

149. Access to a broad stable of high-quality MMA Fighters is essential to stage successful MMA events in the Relevant Output Market. The Challenged Conduct blocked Zuffa's would-be rivals from access to this critical input, and also impaired rivals in other ways. In this way, the Challenged Conduct guaranteed that would-be rivals would not pose a significant competitive threat to Zuffa.³⁹³ Some of these would-be rivals have been acquired by Zuffa, others have gone out of business, and others have been relegated to feeder leagues.³⁹⁴ Both Zuffa and third parties recognize that the Challenged Conduct has been so successful in excluding rivals that Zuffa has no close competitors remaining in the market today.³⁹⁵ The revenues and market shares of other MMA promoters are trivial in comparison to those of Zuffa.³⁹⁶

150. In summary, the direct evidence reviewed above allows me to conclude that Zuffa possesses and has exercised monopoly and monopsony power.

5. All Direct Evidence and Analysis of Zuffa's Market Power Is Common to the Classes

151. All of the direct evidence of Zuffa's market power, and my analysis of it, is common to the Classes as a whole. If I were asked to analyze direct evidence of market power for any single member of either Class, the evidence and analysis would be the same.

392. See Part III.D.6, *infra*.

393. See Part III.C.1, *infra*.

394. See Parts II.A.1; III.A.1; III.A.8, *supra*.

395. See Parts III.A.1; III.A.4-5; III.A.8, *supra*.

396. See Parts III.A.4-5, *supra*.

C. The Challenged Conduct Substantially Foreclosed Competition

152. Given that Zuffa has substantial market power, the next question to consider is whether the Challenged Conduct allowed Zuffa to exercise its market power to significantly foreclose competition. I analyze four factors that inform this question. *First*, the conduct at issue must totally or partially prevent competitors from accessing critical inputs, thereby preventing rivals from competing effectively.³⁹⁷ As explained below, in order to stage successful Live MMA Events in the Relevant Output Market, access to a broad stable of high-quality MMA Fighters is essential. But the Challenged Conduct ensured that Zuffa's would-be rivals lacked access to this critical input, and also impaired rivals in other ways. Thus, the Challenged Conduct guaranteed that would-be rivals would not pose a significant competitive threat to Zuffa (as Zuffa and third parties consistently recognized in internal documents and analyses).

153. *Second*, if the resulting foreclosure represents a substantial share of the relevant markets at issue, that would be a further indication that such foreclosure would have adverse competitive effects. As explained below, the shares of the Relevant Input Market and the Relevant Input Submarket foreclosed by the Challenged Conduct are well in excess of the 20-30 percent thresholds that antitrust scholars have found are sufficient "to infer anticompetitive effects."³⁹⁸

154. *Third*, I understand that some courts have considered whether the duration of the contracts at issue is sufficient to "prevent meaningful competition by rivals."³⁹⁹ That is so here, given Zuffa's ability to make its exclusionary terms in most of its Fighter contracts effectively perpetual, given the ratio of the duration of the agreements to the average Fighter's MMA career,

397. See, e.g., Salop, *supra*, at 376; see also Elhauge at 321-322.

398. See HERBERT HOVENKAMP, XI ANTITRUST LAW ¶1821, at 152, 160, 164-65 (1998). See also Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 469 (2009) ("it makes sense (when effects are not directly proven) to require the same 20-30% foreclosure share threshold that is required to infer anticompetitive effects from exclusive dealing").

399. *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 277 (3d Cir. 2012) [hereafter "*ZF Meritor v. Eaton*"].

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and given that Zuffa's contract expirations were staggered, further ensuring that other MMA promoters could never have access to a critical mass of top-level Fighters at any given time sufficient to compete effectively with Zuffa.

155. *Fourth*, I understand that courts may also consider evidence that the dominant firm engaged in coercive behavior, and (relatedly) evidence on the ability of customers to terminate the contracts.⁴⁰⁰ These conditions are also satisfied, given (1) Zuffa's ability to exploit provisions in Fighter contracts to retain virtually any Fighter it desired; and (2) the fact that Zuffa's Fighter contracts contain one-way ratchets, giving Zuffa unilateral authority to bind Fighters to exclusive terms or to cut them.

1. The Challenged Conduct Blocked Rivals from Access to Key Inputs Necessary for a Successful MMA Promotion

156. As explained in Parts I.A and III.A.1, MMA promoters rely on Headliners at the Top of the Card to draw audiences and viewers to Live MMA Events. Of course, access to a single Headliner would be insufficient for even a single bout; MMA promoters need access to competitive pairings of Fighters. (In economic terms, Fighters are perfect complements in the MMA bout production function.) Nor would access to a single pair of Headliners be sufficient: To produce a stream of successful Live MMA Events over time, multiple pairings of Headliners are obviously necessary. Further, not all Headliners can be matched against each other. For example, a heavyweight Fighter cannot be matched against a lightweight.⁴⁰¹ Even two Headliners of the same

400. *Id.*

401. *See* Unified Rules and Other Important Regulations of Mixed Martial Arts at § 2, available at <http://www.ufc.com/discover/sport/rules-and-regulations#2> ("In non-championship fights, there shall be allowed a 1 pound weigh allowance. In championship fights, the participants must weigh no more than that permitted for the relevant weight division."); Deposition of Joseph Silva at 130:18-25 ("I have to convince athletic commissions that this guy is reasonable. Especially at the heavyweight division, I have less guys, so ... for him to come in, I have less of a choice who to match him up against..."). *See, also* Hendrick 30(b)(6) V.I Tr. at 217:17-218:10 (stating that Zuffa could not offer a strawweight a heavyweight fight because it is "not offering a legitimate fight").

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weight class may be a poor match if there is too much disparity in their relative rankings, or if they have fought each other too recently.⁴⁰² As one review of the existing literature observes,

Superstars in the UFC don't always draw high numbers; they need a competitive opponent in order to garner the desired high buy rates. Anderson Silva, one of the UFC's more popular champions, drew only 300,000 buys in a squash match against Patrick Cote, but drew 725,000 buys facing a much more threatening Vitor Belfort.⁴⁰³

157. Moreover, because Fighters become Headliners by defeating other Headliners, access to a stable of Headliners allows a promotion to create new Headliners. More generally, the list of Headliners is fluid over time, with Fighters' relative rankings shifting constantly with the outcome of bouts, Fighter inactivity, injuries, retirement, and so on.⁴⁰⁴ Therefore, access to a sufficiently broad pool of top-level Fighters (who have the potential to become Headliners) is also important to create and sustain a profitable MMA promotion capable of competing with the UFC.

158. Given (1) the need for a steady supply of appropriately matched Headliners to occupy the Top of the Card; (2) the inherent uncertainty in predicting which Fighters would be capable of doing so (and available to do so) at any given point in the future, and of which Fighters are likely to become Headliners in the future; and (3) the need to replace Fighters that become unavailable due to injury, retirement, and so on, it is clear that ongoing access to a deep pool of talented Fighters is a critical input to the ongoing success of an MMA promotion. As a 2012 Deutsche Bank Report confirms:

402. See, e.g., Silva Dep. 95:18-24 ("Q. [H]ow would you describe or define the term 'contender'? A. That if you have rankings as we have for some while now, it's whoever the higher ranked fighters are who have not recently fought the person who is already champion, would be the highest available contenders."); *id.* at 94:25-95:13 ("Q. Now, is it fair to say that if you have a top-ranked fighter on your roster, you want to try to have that top-ranked fighter fight someone who is at least close to that fighter in rank? A. Yes, ideally. Q. And one of the reasons for that is to create a competitive match-up; is that right? A. Yes. Also to help create more consensus contenders. When people go, well, who should fight for the title next, well, if you go, these two high-ranked guys fought each other, and this was the victor, it would make sense for him to... get a title shot soon.").

403. McGowan & Mahon, *supra*, at 1036.

404. For example, the FightMatrix and USA Today/MMA Junkie rankings are generally updated weekly or biweekly. See <http://mmajunkie.com/category/mma-rankings> (generally showing biweekly updates); see also <http://www.fightmatrix.com/faq/> ("We usually update every Sunday or Monday.").

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In order for a competing MMA organization to generate revenues comparable to UFC, the organization must be willing to invest significant capital in order to build the distribution network required to promote and broadcast major events, as well as create or acquire sufficient content to effectively market such events. Substantial capital would also be required for a competing organization to attract the talent necessary to stage a successful event, while *good matchmaking from a deep roster of talented fighters under contract is essential*..... Any organization intent on building a promotion to directly rival UFC would likely be immediately challenged to build and maintain the infrastructure of employees and fighters on a profitable basis.⁴⁰⁵

159. As explained in Part II.C above, when Zuffa wanted to retain Fighters, Zuffa exploited provisions in its agreements with Fighters to make them effectively perpetual. This ensured that Zuffa's would-be rivals lacked access to this critical input, preventing them from competing effectively. Zuffa's staggered, long-term, and exclusive contracts with Fighters therefore constitute both a key artificial barrier to entry and a key component of the Challenged Conduct. Both Zuffa and third parties recognize that the Challenged Conduct had this effect. According to a March 2016 WME-IMG memorandum, the Challenged Conduct generates "practical barriers to entry" by ensuring that the "best fighters" are unavailable to would-be rivals.⁴⁰⁶ The document recognizes explicitly that, without access to this critical input, rivals cannot generate sufficient revenue to compete effectively:

405. DB-ZUFFA-00006389 at 439 (emphasis added). *See also* John Nash, "Why do boxers make more than MMA fighters?" *Bloody Elbow* (Aug. 23, 2016) ("[I]t is very hard to underestimate how much the UFC dominates the market of mixed martial arts...Somewhat understandable when one realizes that, according to the Fight Matrix rankings, every male fighter in the top three of their division and roughly 85% of all top 10 fighters in the ten divisions that the UFC promotes are under contract with the UFC."). Nash stated on Twitter in 2017 that "[m]y guess is that you'd need around 30% [of top Fighters] and a few #1s before you could threaten a serious run at the UFC." *See* <https://twitter.com/heynottheface/status/884511218207084544>; *see also* Silva Dep. 103:4-23 ("Q. And if you have a live MMA Event that doesn't have a top level, headlining match-up, that could hurt the ability of the event to attract an audience; is that fair? A. It is. ... You may want a bigger fight for a card, but if people are injured or get married or whatever -- you have to work with what you have. Q. And you'd like to have -- as a matchmaker, you'd like to have . . . a complete stable of top-level fighters that are available to fight so you can create headlining events; correct? A. That would be ideal. Q. Okay. And you would not headline an MMA event at the UFC with two lesser-known or lower-ranked fighters if you could help it; correct? A. If you could help it.").

406. WME-ZUFFA-00013978.

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While technical barriers to entry to host a fight are relatively low, practical barriers to entry are extremely high. UFC controls the best fighters, on staggered contracts, and has the revenue model providing ability to pay fighters the most in the market, by far.⁴⁰⁷

Similarly, a 2009 Deutsche Bank Report also described the Challenged Conduct as a key “barrier to entry,” emphasizing that Zuffa had the “[v]ast majority of top fighters under multi-fight exclusive contracts.”⁴⁰⁸ A 2014 Moody’s Credit Opinion cites Zuffa’s ability to maintain a “large contractually bound pool of fighters”⁴⁰⁹ as a key “barrier to entry,” and goes on to note that “we believe that Zuffa has attracted and secured under exclusive contract most of the top highly trained fighters in the sport, which is a qualitative competitive advantage.”⁴¹⁰

160. Text drafted by Zuffa for Deutsche Bank’s 2013 debt-offering prospectus states that “All [UFC] athletes are under long term, exclusive contracts which provides a major competitive advantage for the UFC.”⁴¹¹ A 2010 announcement by Moody’s upgrading Zuffa’s rating outlook explicitly cited the “breadth of fighters under multi-year contracts which help serve as an effective barrier to entry,”⁴¹² emphasizing Zuffa’s “large contractually bound pool of fighters with superior opportunities for exposure and profit...”⁴¹³

407. *Id.*

408. ZUF-000162329-382 (October 2009 Deutsche Bank Report, “\$100,000,000 Incremental Term Loan”); *id.* at 347 (“Key investment considerations” “High barriers to entry,” including “Vast majority of top fighters under multi-fight exclusive contracts”).

409. ZFL-1081154 at 54. Moody’s draft 2014 Credit Opinion for Zuffa notes that its rating “reflects [Zuffa]’s unparalleled position as the largest MMA promotion company. This strong competitive position is protected by high barriers to entry, which include Zuffa’s first mover advantage in structuring and organizing the sport, growing fan interest and loyalty with respect to UFC, brand strength in MMA, and its large contractually bound pool of fighters with superior opportunities for exposure and profit.” Moody’s further notes that “we believe that Zuffa has attracted and secured under exclusive contract most of the top highly trained fighters in the sport, which is a qualitative competitive advantage.” *Id.* at 55.

410. *Id.* at 55.

411. ZFL-1055607 at 613.

412. Moody’s Investors Service, “Announcement: Moody’s Changed Zuffa LLC’s (d/b/a Ultimate Fighting Championship or UFC) Rating Outlook to Positive from Stable,” (December 1, 2010), *available at* https://www.moodys.com/research/Moodys-Changed-Zuffa-LLCs-dba-Ultimate-Fighting-Championship-or-UFC--PR_210184 (“Moody’s Investors Service changed Zuffa, LLC’s (Ba3 Corporate Family Rating) rating outlook to positive from stable. ‘The rating outlook change is prompted by Zuffa’s continued strong revenue and EBITDA growth trends worldwide,’ stated Neil Begley, a Senior Vice President at Moody’s Investors Service. It is also based

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161. As a 2013 Deutsche Bank Report concludes, the Challenged Conduct functioned to “retain talent within the Company,”⁴¹⁴ and “prevent[] fighters from moving to different MMA organizations.”⁴¹⁵ As a result, Zuffa has “no major competitors on a domestic or global basis.”⁴¹⁶

UFC athlete contracts are designed to retain talent within the Company. Most contracts are 4 fights or 20 months, whichever comes first, although marquee fighters typically have longer-term contracts, with an exclusivity clause, that prevents fighters from moving to different MMA organizations while under contract, and with negotiation and matching rights after the agreement expires.... Furthermore, UFC typically has the right to retain athletes who hold a championship title in any weight class at the expiration of their contract for one additional year, thereby ensuring that the Company continues to benefit from such a fighter’s potential popularity through additional promotions and events. UFC’s complete control and ownership of its content also discourages competing organizations from soliciting UFC fighters by restricting their ability to market prior fights for promotional purposes. *It is difficult to replicate the distribution model and there are currently no major competitors on a domestic or global basis.*⁴¹⁷

Deutsche Bank’s conclusion that, as a result of the Challenged Conduct, Zuffa has “no major competitors”⁴¹⁸ is consistently echoed by other industry participants as well as Zuffa itself (as explained in Part III.A.8 above). It is also consistent with the fact that the revenues and market shares of other MMA promoters are trivial in comparison to Zuffa’s (as explained in Parts III.A.4-5 above). Zuffa’s artificially created barriers to entry through the Challenged Conduct explain, at least in part, why well-capitalized enterprises (such as Mark Cuban’s HD Net)⁴¹⁹ and media

upon improving credit metrics, and the increasing mainstream acceptance of the sport of mixed martial arts’ (MMA) popularity and particularly so for industry leading UFC, in Moody’s view. Zuffa’s Ba3 CFR, Probability of Default Rating (PDR) and bank facility rating remain unchanged. Zuffa’s Ba3 CFR reflects its premium MMA platform and UFC brand, sturdy credit metrics, strong free cash flow and superlative international revenue growth prospects. The rating considers the benefits from the growing popularity of UFC, and its scale, brand strength and breadth of fighters under multi-year contracts which help serve as an effective barrier to entry. The rating is also impacted by Zuffa’s relative large scale in MMA, its first mover advantage of bringing structure to the sport, its large contractually bound pool of fighters with superior opportunities for exposure and profit....”).

413. *Id.*

414. DB-ZUFFA-00057908, at 912.

415. *Id.*

416. *Id.*

417. *Id.* (emphasis added).

418. *Id.*

419. Josh Gross, Cuban sees bright future for MMA, ESPN, (September 13, 2007), *available at* <http://www.espn.com/extra/mma/news/story?id=3017701>.

conglomerates (such as Viacom, which purchased Bellator)⁴²⁰ have failed to pose a successful challenge Zuffa's dominance.

162. Zuffa recognized the effect of the Challenged Conduct on its rivals, and deliberately utilized its exclusive contracts with Fighters to prevent other MMA promoters from gaining "traction,"⁴²¹ by keeping Fighters "locked up"⁴²² or "tied up"⁴²³ and hence unavailable to other MMA promoters. Zuffa enforced its exclusivity provisions to prevent Fighters from fighting for other MMA promoters.⁴²⁴ An internal strategy presentation recognizes Zuffa's need to ensure that other MMA promoters are not successful, thereby ensuring that Zuffa is "the only viable

420. Viacom buys Bellator, plans 2013 start on Spike, USA TODAY, (October 26, 2011), *available at* <https://usatoday30.usatoday.com/sports/mma/post/2011-10-26/viacom-buys-bellator-plans-2013-start-on-spike/558003/1>

421. *See* ZFL-1872579. In a February 2014 text message discussion between White and Lorenzo Fertitta regarding re-signing Gilbert Melendez, Melendez's contract with Zuffa was ending and he had come to an agreement with Bellator. In response, Zuffa exercised the right to match clause to re-sign Melendez. *See* ZFL-1897652. Fertitta texts White: "We gotta keep taking these fuckers oxygen till they tap out. We have sacrificed too much to let anyone get traction now[.]" At his deposition, Lorenzo Fertitta testified that the term "fuckers" referred to Bellator, while the "oxygen" referred to Fighters Gilbert Melendez and Eddie Alvarez, both of which Bellator was attempting to recruit. *See* Fertitta Tr. at 291-92.

422. *See* ZFL-2497585 (UFC Chief Paralegal Tracy Long writes "Lorenzo has asked me to prepare a list of all Strikeforce fighters with comp and fights left" and prepares a list of UFC Fighters with past connections to SF. Joe Silva responds, "Not 100% sure why Lorenzo wants this list but my guess is he wants to make sure that fighters with past Strikeforce ties are locked up incase Coker tries to recruit them now that he is at Bellator.").

423. *See* ZFL-2536695 (Long to Silva: "Lorenzo wants Hector [Lombard] tied up in case he looks good at UFC 166.").

424. When Mark Bocek retired and requested that Zuffa release him from his contract in August 2014, Joe Silva wrote in a text message: "Bocek was sent a retirement letter but now he is asking for a complete release. He's coming off a win so I would not give it to him. He could end up fighting for Bellaforce[sic]." *See* ZFL-1897652 at 796. Bocek then asks Lorenzo Fertitta, "Im [sic] retired and have nothing to gain by being under UFC contract for life. Please release me permanently." *Id.* at 683. Lorenzo replies, "That's not really how it works Mark. Every fighter from Chuck Liddell, Mark Coleman, etc that retired in the middle of their contract are still under contract. You can do anything to make money you just can't fight anywhere else." *Id.* at 685. *See also* ZFL-1421024 – White letter to Rampage Jackson: "It appears that you have decided to 'retire' from MMA or other professional fighting competition. Assuming that is your intention, Zuffa, LLC is electing to suspend the Term of the Agreement for the period of such retirement. If you decide to come out of retirement again, I'll be ready to promote the remaining fights pursuant to your Agreement." *See also* ZFL-1702162 (In March 2008, Zelaznik sent a demand letter to Combat Fighting noting that "[i]t has come to our attention that you have listed Melvin Guillard, a fighter currently under contract with the [UFC], as a fighter participating in your fight Combat Fighting Championship event scheduled for May 17, 2008 in Newcastle, England," and demanding that they "explicitly state that Mr. Guillard will not be fighting" in the event). *See also* ZFL-2602496 (In February 2010, Fighter Akiyama asked for permission to compete in a Japanese MMA event called ASTRA in a judo match. Joe Silva responds, "He cannot do it."). *See also* ZFL-2615437; ZFL-12447128; ZFL-2135552; ZFL-2520643.

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alternative [for] a top tier fighter[']s] career.”⁴²⁵ According to a 2010 email from the owner of Strikeforce, summarizing a meeting with Zuffa executives regarding the potential sale of Strikeforce, Dana White indicated that

...he [White] would come guns a blazing now to steal our fighters. He said we were not close to being profitable because we didn't have enough fighters in our stable and that we would feel the pain of his full attention if we didn't sell.⁴²⁶

Zuffa's horizontal acquisitions and its Fighter contracts were mutually reinforcing. The acquisitions bolstered the exclusionary effects of Zuffa's Fighter contracts, placing more and more top Fighters under exclusive contracts, thereby making it still more difficult for surviving MMA promoters to compete effectively. Zuffa's horizontal acquisitions deprived would-be rivals of the acquired rosters. Once Zuffa acquires a roster of Fighters, those Fighters become subjected to its exclusionary contracts, and the remaining non-Zuffa promoters are foreclosed from this pool of talent. As Kurt Otto, President and founder of a now defunct MMA promotion called the IFL, testified:

Q: Do you have an opinion about whether Zuffa's acquisition of Pride and WEC and WFA, in or about 2006 or 2007, made it more difficult or less difficult to compete with the UFC?

A: Well, you tell me. If I need to go get fighters that are bigger names, they're not in the woods somewhere up, in a tree, hiding, they're in a fight organization. And if they're locked up in a contract prematurely or a contract that was transferred and assumed because of the acquisition, I have no shot of getting that fighter.⁴²⁷

163. The acquired rosters included several highly ranked Fighters. As seen in Figure 1 of Part III.A.1, Zuffa's share of the Headliner Submarket has increased steadily in the wake of the Strikeforce acquisition, to more than 80 percent. According to FightMatrix, Zuffa has accounted for at least fourteen of the top fifteen pound-for-pound Fighters worldwide since late 2010.

425. ZFL-2508355 at 60.

426. ZUF-00447778.

427. Deposition of Kurt Otto, February 6, 2017, at 246:19-247:12.

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164. Zuffa's horizontal acquisitions also reinforced the effects of other aspects of the Challenged Conduct by eliminating would-be rivals to which Fighters might otherwise have switched, potentially defeating or at least mitigating Zuffa's attempts to exercise its market power. Because the horizontal acquisitions caused non-Zuffa promoters to lose access to the top (non-Zuffa) Fighters that generated the most revenue, non-Zuffa promoters were further precluded from offering competitive compensation and promising career paths to Fighters. As explained in Part III.A.1 above, even Zuffa's most prominent would-be rivals offer much more limited career opportunities than does Zuffa, in large part because Zuffa has all of the top Fighters locked up; there is nowhere else to go to fight against the best, and ascend the rankings. As Joe Silva testified, "[b]eating guys with crappy records won't convince anyone [a Fighter is] ready for the big leagues."⁴²⁸

[I]f the majority of your opponents have losing records, they're probably not very good, so it doesn't tell me much about your ability... I would like your guy to have more experience and have experience against better people.⁴²⁹

As Fighter (and Plaintiff) Kyle Kingsbury testified regarding the lack of competitive alternatives during the Class Period, "there's nowhere else to go at this point. Strikeforce didn't exist anymore. Pride didn't exist anymore. And I had no way of saying no [to the UFC]."⁴³⁰ Similarly a 2012 Deutsche Bank document recognizes explicitly that Zuffa's horizontal acquisitions serve Zuffa's interests by depriving Fighters of competitive options:

With the merger of World Extreme Cagefighting and the UFC, the absorption of Pride Fighting Championships, and the acquisition of Strikeforce, the market has become increasingly concentrated, with the risk of fighters defecting reduced significantly.⁴³¹

428. Silva Dep. at 130:12-14.

429. *Id.* at 128:23-129:11

430. See Deposition of Kyle Kingsbury, February 17, 2017, at 119. See also Part IV.B, *supra*.

431. DB-ZUFFA-00006389 at 6397.

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165. As explained in Part II.A.1 above, after the Strikeforce acquisition, Zuffa's share of the Relevant Input Market rose to over 90 percent under the Tracked measure, to over 80 percent under the Headliner definition, and to over 70 percent under the Ranked measure. The Herfindahl-Hirschman Index ("HHI") for the Relevant Input Market and Submarket therefore exceeds 8,100 under the Tracked measure,⁴³² exceeds 6,400 under the Headliner Submarket,⁴³³ and exceeds 4,900 under the Ranked measure.⁴³⁴ Each of these HHI values fall well above 2,500, the threshold for a market to be classified as "highly concentrated" according to the antitrust agencies' *Horizontal Merger Guidelines*.⁴³⁵

166. The remaining components of the Challenged Conduct further reinforced its exclusionary effects on rivals. As explained in Part II.A.2 above, record evidence indicates that the intent and effect of Zuffa's counter-programming was to harm competition by impairing rivals: Although counter-programming "was not profitable in itself,"⁴³⁶ it "worked by preventing new competitors from both achieving profitable operations and recouping their investments in high-profile fighters."⁴³⁷ As explained in Part II.A.3 above, record evidence suggests that Zuffa worked with other MMA promoters to impair potential rivals by shutting off access to Fighters. As explained in Part II.B.3 above, Zuffa also (1) prevented other MMA promoters from using clips of Fighters' past fights to promote Fighters who had left the UFC;⁴³⁸ (2) prevented Fighters from

432. Equal to $0.9^2 \times (10,000)$.

433. Equal to $0.8^2 \times (10,000)$.

434. Equal to $0.7^2 \times (10,000)$.

435. *Merger Guidelines*, §5.3.

436. Jesse Baker & Matthew Thomson, *The Ultimate Fighting Championships (UFC): The Evolution of a Sport*, in CASES IN MARKETING MANAGEMENT 115 (Kenneth E. Clow & Donald Baack, eds. 2012).

437. *Id.*

438. Joe Silva admitted that "fighters often used their prior videos as a way to promote themselves" and that "it would be hurtful for [a] promotion not to be able to show past fights. We use – those past fights help to promote future fights... Because that's how you promote a fight. You want to establish what this person has accomplished."

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departing from the UFC without also losing their sponsorships; and (3) required venues, sponsors, and broadcasters not do business with other MMA promoters as a condition for doing business with Zuffa. All of this reinforced the exclusionary effects of the Challenged Conduct.

2. The Challenged Conduct Foreclosed a Substantial Share of the Relevant Input Market and Submarket

167. In this section, I present evidence demonstrating that Zuffa's exclusive contracts with Fighters substantially foreclosed competition. One of my foreclosure metrics is the share of Headliners foreclosed by the Challenged Conduct. Given that Headliners are a critical input for staging successful Live MMA Events, Zuffa's foreclosure of Headliners impairs rivals and enables Zuffa to exercise monopsony power over all Fighters in the Relevant Input Market. However, given the uncertainty in determining which Fighters will become Headliners in the future, it is logical that Zuffa would seek to foreclose a broad pool of top-level Fighters (who have the potential to become Headliners) to ensure continued dominance over time. Indeed, Zuffa's exclusive contracts apply to all of its Fighters, not just the top-ranked Fighters. Accordingly, I calculate Zuffa's foreclosure of the Relevant Input Market (measured both ways), as well as the Relevant Input Submarket.

168. As explained below, a large and increasing share of the Relevant Input Market (between 68 percent and 98 percent during the Class Period) and the Relevant Input Submarket (between 50 and 91 percent during the Class Period) has been foreclosed by the Challenged

Therefore, from Zuffa's perspective it was "very important to be able to promote its fighters and its fights by using video of fighters' prior fights." Silva Dep. at 25:2-4; 270:12-271:17.

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Conduct. These foreclosure shares are well in excess of the 20-30 percent thresholds that antitrust scholars have found are sufficient “to infer anticompetitive effects.”⁴³⁹

169. To measure Zuffa’s overall foreclosure of the Relevant Input Market and Submarket, I calculated the ratio of MMA Fighters foreclosed by Zuffa’s exclusionary Fighter contracts to the total number of MMA Fighters in the Relevant Input Market (under both measures) and Submarket. As in the market share calculations, Fighter counts are weighted by MMA promoters’ average PPV and gate revenue per Fighter.

170. I calculate Zuffa’s foreclosure share under two alternative definitions of foreclosure. Under the first definition, all Zuffa Fighters are classified as foreclosed. This definition makes economic sense as a measure of Zuffa’s overall foreclosure of the Relevant Input Market and Submarket, given that Zuffa had the ability to retain virtually any Fighter it wanted to retain (as explained in Part II.C above). Under this definition of foreclosure, Zuffa’s foreclosure share converges to its market share, calculated in Part III.A.4 above. Given Zuffa’s high market shares, it follows that a large and increasing share of the Relevant Input Market and Submarket were foreclosed. Specifically, if all Zuffa Fighters are classified as foreclosed, Zuffa’s foreclosure share of the Relevant Input Market has fluctuated between 94 percent and 99 percent (using the Tracked measure) and between 71 percent and 91 percent (using the Ranked measure) from the beginning of the Class Period through June 2017. Over this same time period, Zuffa’s foreclosure share of the Relevant Input Submarket has fluctuated between 95 percent and 99 percent (if

439. See HERBERT HOVENKAMP, XI ANTITRUST LAW ¶1821, at 152, 160, 164-65 (1998). See also Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 469 (2009) (“it makes sense (when effects are not directly proven) to require the same 20-30% foreclosure share threshold that is required to infer anticompetitive effects from exclusive dealing”).

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Fighters are weighted by revenue) and between 52 percent and 91 percent (if Fighters are weighted by the inverse of their FightMatrix rank).⁴⁴⁰

171. Under the second foreclosure definition, I conservatively classify Zuffa Fighters as foreclosed if (1) the Fighter's contract contained a champion's clause (which all or virtually all did), and (2) the contract had a sufficiently long duration of exclusivity.⁴⁴¹ Specifically, Fighters were considered foreclosed if their contracts constrained them from fighting for and/or freely negotiating with other MMA promoters for a period of at least 30 months. This represents an economically significant share (the majority, or, in many cases, the entirety) of a Fighter's professional MMA career, as explained in Part II.C.2 above.

172. The 30-month threshold is conservative given that antitrust scholars have found that exclusive contracts longer than twelve months in duration can have anticompetitive effects, depending on the industry.⁴⁴² The 30-month threshold is also conservative given that Zuffa routinely leveraged its bargaining power to induce Fighters to renew their contracts before the prior contract had expired, as explained in Part II.C. For example, a Fighter forced to commit to two sequential contracts of 20 months each is effectively foreclosed for 40 months, but would not be classified as foreclosed under this definition.

173. The graph below displays Zuffa's foreclosure share over time for the Relevant Input Market and Submarket when only Fighters whose contracts satisfy the 30-month threshold are considered foreclosed. As seen below, under this definition of foreclosure, I find that large and increasing shares of the Relevant Input Market and Submarket were foreclosed. Specifically,

440. See Part III.A.4, *supra*.

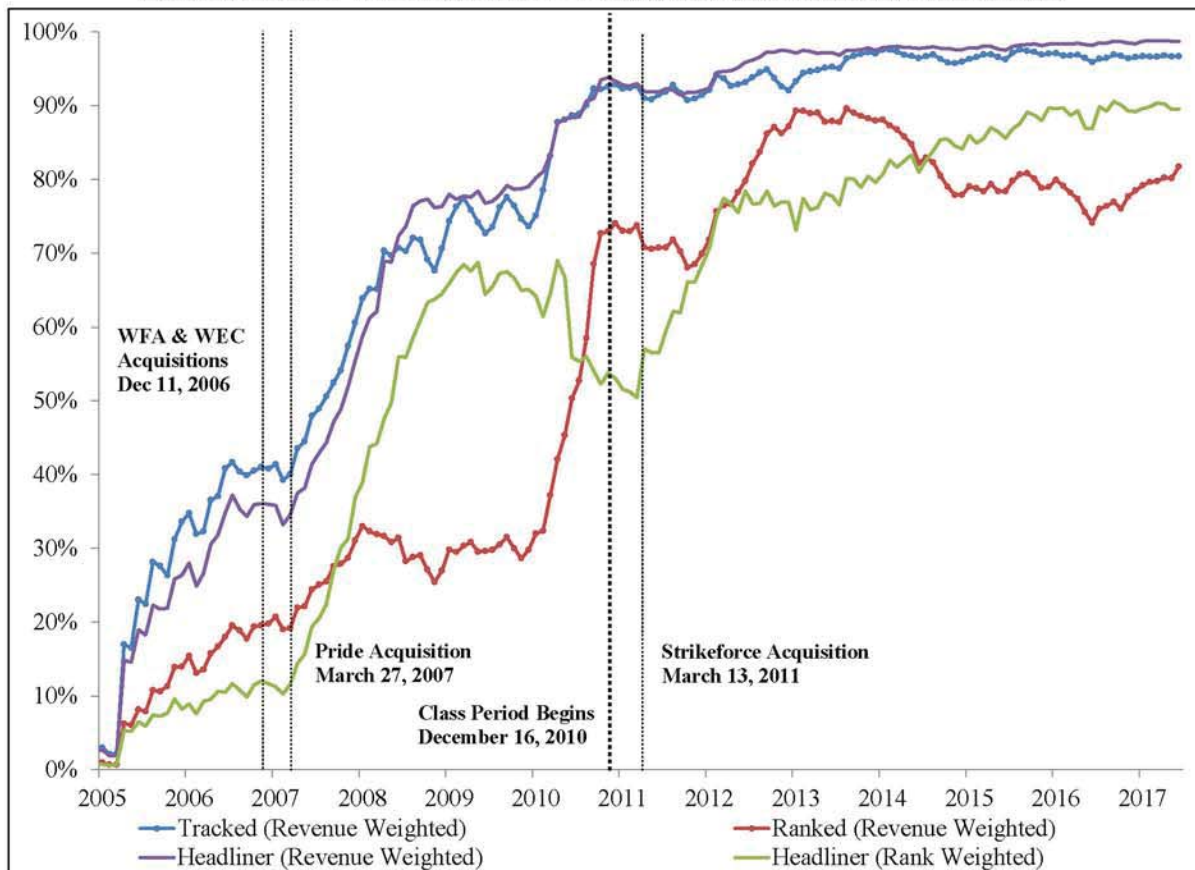
441. As explained in Part II.C above, the duration of exclusivity is calculated as the sum of (1) the Term (including the lead-up time to a Fighter's first bout); (2) the option period (if any); (3) the exclusive negotiation period; and, (4) the right to match period.

442. Areeda & Hovenkamp ¶ 1821d3.

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Zuffa's foreclosure share of the Relevant Input Market has fluctuated between 91 percent and 98 percent (using the Tracked measure) and between 68 percent and 90 percent (using the Ranked measure) from the beginning of the Class Period through June 2017. Over this same time period, Zuffa's foreclosure share of the Relevant Input Submarket has fluctuated between 91 percent and 99 percent (if Fighters are weighted by revenue) and between 50 percent and 91 percent (if Fighters are weighted by the inverse of their FightMatrix rank)

FIGURE 3: ZUFFA FORECLOSURE SHARE OF RELEVANT INPUT MARKET OVER TIME
ZUFFA FIGHTERS WITH DURATION > 30 MONTHS CLASSIFIED AS FORECLOSED



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3. The Duration and Staggering of Zuffa's Contracts Prevented Meaningful Competition by Potential Rivals

174. As explained in Part II.C.2, the exclusive terms in Zuffa's contracts, combined with Zuffa's leveraging of the Challenged Conduct to renew and extend contracts, allowed Zuffa to prevent rivals from accessing Fighters for a period that was effectively perpetual, relative to Fighters' brief career lengths. Zuffa's top Fighters were bound by even longer-term contracts, and were (like all Fighters) subject to the champion's clause.⁴⁴³

175. In addition, Zuffa's contracts were staggered, with different Fighters reaching the end of their contracts at different points in time. This further ensured that other MMA promoters would not have access to a sufficient stable of Fighters at any given time to compete effectively with Zuffa.⁴⁴⁴ Indeed, on the few occasions when Zuffa has released Fighters to Bellator that, in Zuffa's view, might have allowed Bellator to stage a successful event, Zuffa has taken care to ensure that suitable opponents were not available to Bellator.⁴⁴⁵

4. Zuffa Engaged in Coercive Contracting Behavior and Restricted Fighters' Ability to Terminate Contracts

176. To an economist, coercion in the context of foreclosure can be thought of as the ability of a dominant firm to induce an economic agent to submit to exclusionary terms, by

443. See Part II.C.2, *supra*; see also DB-ZUFFA-00057908, at 912 ("marquee fighters typically have longer-term contracts, with an exclusivity clause...UFC typically has the right to retain athletes who hold a championship title in any weight class at the expiration of their contract for one additional year, thereby ensuring that the Company continues to benefit from such a fighter's potential popularity through additional promotions and events."); WME-ZUFFA-00001150 at *11 (analyzing bouts remaining in Fighter contracts for top-ranked fighters to assess the "Risk of Fighter Compensation Inflation," showing that champions have, on average, 6.5 bouts remaining in their contracts; Fighters ranked 1-5 have 5.5 bouts remaining on average; Fighters ranked 6-10 have 3.6 bouts remaining on average, and so on).

444. WME_ZUFFA_00013978 ("practical barriers to entry are extremely high. UFC controls the best fighters, on staggered contracts").

445. See Part II.C.1, *supra*.

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ensuring that the agent would be made worse off by refusing them.⁴⁴⁶ This can be accomplished by exploiting a collective action problem, in which Fighters would be made individually worse off by refusing Zuffa's exclusionary terms, despite the fact that Fighters would be collectively better off if Fighters coordinated in their refusal.⁴⁴⁷ By this standard, Zuffa clearly engaged in coercive behavior: As explained in Part II.C.1 above, Zuffa exploits its contract provisions to retain virtually any Fighter it desired, and Fighters agreed to Zuffa's terms because the Challenged Conduct left them no better alternative. Similarly, the Challenged Conduct clearly involved Fighters submitting to terms that asymmetrically restricted their ability to terminate their contracts: As explained in Part II.B.1 above, Zuffa's Fighter contracts contain one-way ratchets, giving Zuffa, but not Fighters, the discretion to continue to enforce exclusivity or to discontinue the contract if Zuffa had no further use for the Fighter. Moreover, Fighters were further restricted in their ability to terminate the exclusive terms governing them, given Zuffa's ability to leverage the Challenged Conduct to renew and extend contracts, explained in Part II.C.1 above.

5. All Evidence and Analysis of Foreclosure Is Common to the Classes

177. All of the evidence and analysis demonstrating that Zuffa foreclosed competition to a significant degree is common to the Classes. If I were asked to analyze foreclosure for any single member of either Class, the evidence and analysis would be the same.

D. The Challenged Conduct Generated Substantial Anticompetitive Effects

178. Given that Zuffa had substantial market power and substantially foreclosed competition, anticompetitive effects would be expected and can be inferred. Nevertheless, in this section, I consider whether there is direct evidence that the Challenged Conduct generated

⁴⁴⁶. See, e.g., Ilya Segal & Michael Whinston, *Naked Exclusion: Comment* 90(1) AM. ECON. REV. 296-309 (2000).

⁴⁴⁷. *Id.*

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anticompetitive effects.⁴⁴⁸ Evidence of anticompetitive effects includes regression analyses demonstrating that Fighter compensation as a share of event revenue declines as Zuffa's foreclosure share increases, after controlling for other factors that might influence Fighter compensation. Additional evidence of anticompetitive effects includes evidence that the Challenged Conduct restricted the supply of Fighter services in the Relevant Input Market and Submarket, and (relatedly) the supply of Live MMA Events in the Relevant Output Market, in addition to raising prices in the Relevant Output Market.

179. I understand that some courts have found that the anticompetitive effects of the conduct at issue should be "considered in light of any procompetitive effects."⁴⁴⁹ As explained in Part VII below, the purported procompetitive justifications that Zuffa has proffered for the Challenged Conduct in prior proceedings are unavailing. To the contrary, the experience of other professional sports leagues suggests that halting (and remediation) of the Challenged Conduct would benefit Fighters, consumers, and the industry as a whole.

1. Regression Models Show Bout Class Compensation Share Is Negatively Correlated with Zuffa's Foreclosure Share, Implying That Increased Foreclosure Share Causes Decreased Compensation Share

180. For the Bout Class, I estimated multivariate regression models in which the dependent variable to be explained is the share of event revenue received by a given Fighter at a given event, while the key independent variable of interest is Zuffa's foreclosure share. For any given bout in any given event, the total compensation each Fighter in the Bout Class receives can be decomposed into four categories; these are (1) show and win purses, (2)

⁴⁴⁸. Salop, *supra*, at 376; 383 ("In the RRC foreclosure paradigm, the ultimate antitrust concern is not the harm to the rivals, but rather the possible harm to consumers and competitive process from the resulting market power.").

⁴⁴⁹. *ZF Meritor v. Eaton* at 24.

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discretionary/performance pay, (3) PPV royalties, and (4) letters of agreement.⁴⁵⁰ I define a Fighter's total event-level compensation ("Event Compensation") as the sum across these four categories.

181. The dependent variable in my regression model ("Fighter Share") is equal to the share of Zuffa's event-specific revenue ("Event Revenue")⁴⁵¹ paid to a given Fighter that participated in a given event at a given point in time. Zuffa's Event Revenues include revenues from ticket sales, PPV and broadcasting fees, and other event-specific revenue streams. The regression data set includes Fighter Shares for both Zuffa Fighters, and for Strikeforce Fighters prior to Zuffa's acquisition of Strikeforce.⁴⁵²

182. The regression model can be written as follows:

$$S_{ijt} = \beta_0 + \beta_i + \beta_1 D_{jt}^z FS_{jt} + \beta_2 Win_{ijt} + \beta_3 HasRank_{ijt} + \beta_4 Rank_{ijt} + \beta_5 LOA_{ijt} + \beta_6 PPV_{ijt} + \sum_k \lambda_k X_{ijt}^k + \varepsilon_{ijt} \quad (1.1)$$

Above, S_{ijt} is the Fighter Share, equal to the ratio of each Fighter's Event Compensation to Event Revenue for Fighter i participating in event j at time t . The key variable of interest, FS_{jt} , is the share of the Relevant Input Market or Submarket foreclosed by Zuffa as of time t . As explained in Part III.C above, FS_{jt} is defined as the ratio of MMA Fighters foreclosed by Zuffa's exclusionary contracts to the total number of MMA Fighters in the Relevant Input Market or Submarket, with

450. See Part I.B, *supra*; see also ZFL-0000003 (Zuffa Fighter compensation table).

451. The Event Revenues used in my regression analysis were calculated using Zuffa's P&L statements, and include Ticket Sales/Site Fees PPV/Broadcast Sales/Fees (including "Web Buys" and "Other"), event-specific Merchandise, and event-specific Sponsorships.

452. The Appendix describes the construction of the regression data set, which makes use of all available data from Zuffa at a sufficiently granular level to conduct my regression analysis, including the Strikeforce pre-acquisition data produced by Zuffa. As explained below, the Strikeforce pre-acquisition data provide a benchmark for the share of revenue that Fighters would receive in the but-for world.

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Fighters weighted by PPV and gate revenues to reflect differences in the average quality of Fighters across different MMA promoters.⁴⁵³

183. The variable D_{jt}^z is set equal to one for all Zuffa events, and to zero for non-Zuffa events (that is, Strikeforce events prior to Zuffa's acquisition of Strikeforce). The coefficient β_1 therefore captures two effects: (1) the effect of Zuffa's increasing foreclosure share over time on Zuffa Fighter Shares, relative to those of Zuffa Fighters in time periods with lower foreclosure shares, after controlling for all other variables in the regression; and (2) the effect of Strikeforce Fighter Shares prior to the acquisition exceeding Zuffa Fighter Shares (after controlling for all other variables in the regression). Therefore, both the Strikeforce pre-acquisition Fighter Shares and Zuffa Fighter Shares during periods of (relatively) low foreclosure effectively serve as benchmarks for the Fighter Shares that Zuffa Fighters would have received in the but-for world. As explained below, my regression results show that β_1 is negative, and both statistically and economically significant. This result confirms that Zuffa's foreclosure of the Relevant Input Market and Submarket suppressed compensation for the Bout Class: But for the Challenged Conduct, Zuffa Fighter Shares would have been significantly higher.⁴⁵⁴

453. My regression results are robust to different weighting schemes, even if Fighters are unweighted. In particular, the regression shows a negative and statistically and economically significant relationship between Zuffa's foreclosure share and the Fighter Share of revenues if the foreclosure share is calculated in any of the following ways: (1) weighting Fighters by revenue per Fighter; (2) weighting Fighters by the inverse of the Fighter's rank; or (3) simply using an unweighted count of Fighters.

454. Using Strikeforce pre-acquisition Fighter Shares as a benchmark is consistent with elementary economics, which shows that competitive firms pay labor a share of revenue commensurate with labor's productivity, based on the marginal product of labor. *See, e.g.,* ROY RUFFIN & PAUL GREGORY, PRINCIPLES OF MICROECONOMICS 331-336 (Harper Collins 5th ed. 1993); *see also* MICHAEL KATZ & HARVEY ROSEN, MICROECONOMICS 264-65, 276-77 (Irwin McGraw-Hill 3rd ed. 1998). In contrast, firms that wield monopsony power pay a smaller share of revenue of labor, by restricting both the amount of labor hired and the compensation paid to labor. *Id.* Therefore, although the Challenged Conduct, by reducing revenue opportunities for rival promoters, might have suppressed the *level* of compensation that Strikeforce (and other would-be rivals) could afford to pay to Fighters, the *share* of revenue paid to Fighters by Strikeforce remains an economically relevant benchmark for estimating but-for compensation.

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184. The remaining variables in equation (1.1) above control for other factors that may influence Fighter-compensation shares. The term β_i denotes Fighter-specific fixed effects, which control for all individual, Fighter-level attributes that remain constant over time. The variable Win_{ijt} is an indicator equal to one if the Fighter won the bout (and thus received the win purse), and zero otherwise. The variable $HasRank_{ijt}$ is an indicator equal to one if FightMatrix records a ranking for Fighter i at the time of event j , and zero otherwise. The variable $Rank_{ijt}$ is an integer corresponding to the Fighter's rank; it is set equal to zero for non-ranked Fighters. The variables LOA_{ijt} and PPV_{ijt} are indicators equal to one if the Fighter was entitled to additional compensation pursuant to a Letter of Agreement or an agreement to receive PPV royalties, and zero otherwise.

185. The variables X_{ijt}^k denote the remaining control variables in the model. Included in X_{ijt}^k are controls for bout-specific performance data reported in the FightMetric database, such as strikes attempted, takedowns landed, and so on.⁴⁵⁵ Additional controls include variables capturing the Fighter's win/loss record, fixed effects for gender, promoter, weight class, year, country, and venue, as well as a time trend. Also included are indicator variables for the manner in which the fight ended (e.g., submission, technical knockout, disqualification, etc.). Descriptions of and summary statistics for the regression variables are reported in Tables 4 and 5.

Moreover, my regression analysis confirms that Zuffa's foreclosure (before the Class Period) did *not* significantly affect the Fighter Shares of pre-acquisition Strikeforce Fighters. To test this hypothesis, I estimated regressions identical to equation (1.1) above, except that they also included FS interacted with $(1 - D_{jt}^z)$. These alternative

regression models can be written $S_{ijt} = \beta_0 + \beta_i + \beta_1 D_{jt}^z FS_{jt} + \alpha (1 - D_{jt}^z) FS_{jt} + [Controls] + \varepsilon_{ijt}$

In these alternative models, the coefficient α measures the incremental effect of Zuffa's foreclosure on non-Zuffa Fighters. The coefficient α was found to be statistically insignificant, indicating that Zuffa's foreclosure affected the Fighter Shares of Zuffa Fighters, but not Strikeforce pre-acquisition Fighters. (The coefficient β_1 remained negative and statistically and economically significant, consistent with the regression results reported below).

455. See, e.g., <http://www.fightmetric.com/fight-details/ea8eaf881d38713e>.

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TABLE 4: REGRESSION VARIABLES

Variable	Source	Description
<i>Foreclosure Share [Tracked]</i>	Zuffa	Calculated using the “Tracked” Input Market Measure.
<i>Foreclosure Share [Ranked]</i>	Zuffa	Calculated using the “Ranked” Input Market Measure.
<i>Foreclosure Share [Headliner]</i>	Zuffa	Calculated using the “Headliner” Input Market Measure.
<i>Fighter Event Compensation</i>	Zuffa	Show + Win + PPV +LOA.
<i>Zuffa Event Revenue (Millions)</i>	Zuffa	Ticket sales + PPV/broadcasting + Event-specific sponsors
<i>Fighter Share</i>	Zuffa	[Fighter Event Compensation]/[Event Revenue].
<i>Gender</i>	Zuffa	Gender of the Fighter (Male = 1; Female = 0).
<i>Fight Ending Round</i>	Zuffa	Final round number of the bout.
<i>Win Flag</i>	Zuffa	Indicator variable denoting a winning bout (Win=1; Loss=0).
<i>HasRank</i>	FightMatrix	Equal to one if Fighter ranked in FightMatrix database as of event date; zero otherwise.
<i>Rank</i>	FightMatrix	Equal to Fighter’s rank in FightMatrix database as of event date; zero if not ranked.
<i>LOA</i>	Zuffa	Equal to one if Fighter entitled to compensation pursuant to Letter of Agreement; zero otherwise.
<i>PPV</i>	Zuffa	Equal to one if Fighter entitled to PPV compensation; zero otherwise.
<i>Wins</i>	SherDog	Number of prior wins for Fighter.
<i>Fights</i>	SherDog	Number of prior fights for Fighter.
<i>Total Knockdowns</i>	FightMetric	Total knockdowns achieved in a bout.
<i>Total Strikes Landed</i>	FightMetric	Total number of strikes landed in a bout.
<i>Total Strikes Attempted</i>	FightMetric	Total number of strikes attempted in a bout.
<i>Percent of Strikes Landed</i>	FightMetric	[Total Strikes Landed]/[Total Strikes Attempted].
<i>Significant Strikes Landed</i>	FightMetric	Total number of significant strikes landed in a bout.
<i>Significant Strikes Attempted</i>	FightMetric	Total number of significant strikes attempted in a bout.
<i>Percent of Sig. Strikes Landed</i>	FightMetric	[Significant Strikes Landed]/[Significant Strikes Attempted].
<i>Takedowns Landed</i>	FightMetric	Total number of takedowns executed in a bout.
<i>Takedowns Attempted</i>	FightMetric	Total number of takedowns attempted in a bout.
<i>Percent of Takedowns Landed</i>	FightMetric	[Takedowns Landed]/[Takedowns Attempted].
<i>Submissions Attempted</i>	FightMetric	Total number of submissions attempted in a bout.
<i>Offensive Passes</i>	FightMetric	Total number of position improvements achieved in a bout.
<i>Sweeps</i>	FightMetric	Total number of sweeps (reversals) achieved in a bout.

Notes: Regressions include fixed effects by Fighter, win method, gender, weight class, card placement, bout number, promoter, year, country, venue, and a time trend.

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TABLE 5: REGRESSION SUMMARY STATISTICS

Variable	Mean	SD	Min	Max
<i>Foreclosure Share [Tracked]</i>	0.888	0.143	0.241	0.972
<i>Foreclosure Share [Ranked]</i>	0.679	0.217	0.0950	0.887
<i>Foreclosure Share [Headliner]</i>	0.898	0.158	0.199	0.986
<i>Fighter Event Compensation (Thousands)</i>	\$100.9	\$338.2	\$2	\$8,000
<i>Zuffa Event Revenue (Millions)</i>	\$10.87	\$10.53	\$0.161	\$61.19
<i>Fighter Share*</i>	0.0120	0.0269	0.000105	0.806
<i>Gender</i>	0.964	0.185	0	1
<i>Fight Ending Round</i>	2.328	1.002	1	5
<i>Win Flag</i>	0.494	0.500	0	1
<i>HasRank</i>	0.957	0.203	0	1
<i>Rank</i>	59.52	74.79	0	594
<i>LOA</i>	0.0379	0.191	0	1
<i>PPV</i>	0.0210	0.143	0	1
<i>Wins</i>	3.751	3.543	0	24
<i>Fights</i>	6.075	4.995	1	32
<i>Total Knockdowns</i>	0.219	0.489	0	3
<i>Strikes Landed</i>	50.14	41.52	0	361
<i>Strikes Attempted</i>	95.69	73.35	0	500
<i>Percent of Strikes Landed</i>	0.525	0.188	0	1
<i>Significant Strikes Landed</i>	31.20	26.81	0	238
<i>Significant Strikes Attempted</i>	74.39	63.57	0	496
<i>Percent of Sig. Strikes Landed</i>	0.437	0.173	0	1
<i>Takedowns Landed</i>	1.137	1.730	0	21
<i>Takedowns Attempted</i>	2.994	3.774	0	33
<i>Percent of Takedowns Landed</i>	0.280	0.358	0	1
<i>Submissions Attempted</i>	0.461	0.924	0	9
<i>Offensive Passes</i>	1.152	2.065	0	26
<i>Sweeps</i>	0.140	0.424	0	5
Observations:	6,942			

*Mean Fighter Share, like all other variables above, calculated as simple average. The weighted average Fighter Share is equal to the ratio of mean Fighter Event Compensation to mean Zuffa Event Revenue, or $[\$100,900]/[\$10,870,000] = 0.9$ percent. Notes: Regressions include fixed effects by Fighter, win method, weight class, card placement, bout number, promoter, year, country, venue, and a time trend. Summary statistics limited to Zuffa events.

186. The regression results for the Bout Class are reported in Table 6 below. The explanatory variables in the model collectively explain a large proportion (more than 65 percent) of the variation in the dependent variable (as seen in the *R*-squared statistics). In the first two columns, the *Foreclosure Share* variable is calculated using the Tracked measure of the Relevant Input Market described Part III.A.1 above. In the third and fourth columns, the *Foreclosure Share*

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variable is calculated using the Ranked measure of the Relevant Input Market, also described in Part III.A.1 above. Regardless of how the Relevant Input Market is defined, the coefficient on *Foreclosure Share* is negative and highly statistically significant in all specifications. That is to say: An increase (decrease) in the *Foreclosure Share* is associated with a decrease (increase) in the share of Event Revenue paid to Fighters. This result holds regardless of whether the *Foreclosure Share* is measured using the Tracked or Ranked measure of the Relevant Input Market or if the Headliner Submarket is used. This confirms that, (a) by foreclosing a substantial share of the Relevant Input Market, Zuffa impaired potential rivals sufficiently to be able to undercompensate its Fighters generally; and (b) simply by foreclosing Headliners, Zuffa impaired potential rivals sufficiently to allow Zuffa to undercompensate Zuffa Fighters generally.

187. For example, the result in the third column, for Headliners (with an the estimated coefficient on *Foreclosure Share* of -0.0319) implies that, if the *Foreclosure Share* were to decrease from 90 percent to 80 percent, the Fighter Share for the average Fighter would increase by $(0.9-0.8) \times (0.0319) = 0.00319$, or about 0.319 percentage points. This represents a very substantial increase: Given that the average Fighter Share is only about 1.2 percent (as seen in Table 5 above), the average Fighter's compensation would increase by about 27 percent (equal to $0.00319/0.012$) if the *Foreclosure Share* were to decrease from 90 percent to 80 percent. These results confirm that the Challenged Conduct suppressed compensation for the Bout Class by a statistically and economically significant amount.⁴⁵⁶

456. This measure of economic harm is conservative because it measures only the exclusionary effects of Zuffa's Fighter contracts, and not the exclusionary effects of other aspects of the Challenged Conduct reviewed in Parts II.A and II.B above. As a result, this measure of economic harm is appropriate regardless of whether the other conduct is found to be anticompetitive. Put differently, even if the Challenged Conduct consisted solely of Zuffa's exclusionary contracts, my analysis of foreclosure analysis the resulting estimates of economic harm would remain the same.

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TABLE 6: REGRESSION OUTPUT (BOUT CLASS)

Explanatory Variable	Dependent Variable: Fighter Share		
	Tracked	Ranked	Headliner
<i>Foreclosure Share</i>	-0.0329** (0.0434)	-0.0427** (0.0317)	-0.0319** (0.0462)
<i>Gender</i>	-0.00653 (0.207)	-0.00552 (0.286)	-0.00653 (0.208)
<i>Fight Ending Round</i>	-0.000109 (0.890)	-9.04e-05 (0.909)	-0.000108 (0.892)
<i>Win Flag</i>	0.000637 (0.572)	0.000664 (0.557)	0.000649 (0.565)
<i>HasRank</i>	0.000144 (0.929)	0.000106 (0.948)	0.000108 (0.947)
<i>Rank</i>	3.19e-06 (0.643)	3.60e-06 (0.605)	3.28e-06 (0.634)
<i>LOA</i>	0.0221*** (0.00256)	0.0218*** (0.00339)	0.0221*** (0.00253)
<i>PPV</i>	-0.00645 (0.336)	-0.00632 (0.345)	-0.00643 (0.337)
<i>Wins</i>	0.00324*** (0.00826)	0.00323*** (0.00871)	0.00324*** (0.00830)
<i>Fights</i>	0.000416 (0.884)	0.000153 (0.956)	0.000418 (0.884)
<i>Fight Of The Night</i>	0.00860*** (8.88e-10)	0.00858*** (9.21e-10)	0.00860*** (8.76e-10)
<i>Fighter KO Of The Night</i>	0.00424** (0.0300)	0.00422** (0.0308)	0.00424** (0.0296)
<i>Fighter Submission Of The Night</i>	0.00602*** (1.03e-05)	0.00608*** (8.09e-06)	0.00600*** (1.13e-05)
<i>Fighter Performance Of The Night</i>	0.0102*** (3.96e-06)	0.0102*** (3.90e-06)	0.0102*** (4.08e-06)
<i>Win Method: Could Not Continue</i>	-0.00860* (0.0558)	-0.00910** (0.0446)	-0.00857* (0.0572)
<i>Win Method: Disqualification</i>	-0.000951 (0.722)	-0.00227 (0.404)	-0.000880 (0.743)
<i>Win Method: Decision - Major</i>	0.00180 (0.548)	0.00147 (0.628)	0.00179 (0.549)
<i>Win Method: Decision - Split</i>	-0.00332 (0.139)	-0.00335 (0.146)	-0.00334 (0.136)
<i>Win Method: Decision - Unanimous</i>	-0.00225 (0.340)	-0.00220 (0.361)	-0.00226 (0.336)
<i>Win Method: Knockout / TKO</i>	-0.00273 (0.119)	-0.00269 (0.137)	-0.00274 (0.116)
<i>Win Method: Overturned</i>	-0.00130 (0.631)	-0.00137 (0.616)	-0.00131 (0.626)
<i>Win Method: Submission</i>	-0.00303* (0.0896)	-0.00305 (0.101)	-0.00303* (0.0883)
<i>Total Knockdowns</i>	0.00111 (0.215)	0.00118 (0.198)	0.00112 (0.214)
<i>Strikes Landed</i>	-5.33e-05 (0.530)	-8.31e-05 (0.321)	-5.19e-05 (0.541)
<i>Strikes Attempted</i>	2.90e-05 (0.699)	5.52e-05 (0.454)	2.81e-05 (0.708)

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TABLE 6 (CONTINUED)

Explanatory Variable	Tracked	Ranked	Headliner
<i>Percent of Strikes Landed</i>	0.00854** (0.0207)	0.00844** (0.0216)	0.00856** (0.0206)
<i>Significant Strikes Landed</i>	3.76e-05 (0.677)	6.53e-05 (0.459)	3.55e-05 (0.694)
<i>Significant Strikes Attempted</i>	-2.43e-05 (0.747)	-4.93e-05 (0.506)	-2.31e-05 (0.759)
<i>Percent of Sig. Strikes Landed</i>	-0.00532 (0.135)	-0.00512 (0.150)	-0.00537 (0.132)
<i>Takedowns Landed</i>	0.000356 (0.222)	0.000363 (0.214)	0.000354 (0.226)
<i>Takedowns Attempted</i>	-0.000205* (0.0946)	-0.000201* (0.0988)	-0.000205* (0.0937)
<i>Percent of Takedowns Landed</i>	-0.00141 (0.244)	-0.00150 (0.216)	-0.00140 (0.248)
<i>Submissions Attempted</i>	-0.000198 (0.456)	-0.000189 (0.476)	-0.000195 (0.462)
<i>Offensive Passes</i>	0.000420** (0.0497)	0.000413* (0.0550)	0.000418* (0.0510)
<i>Sweeps (Reversals)</i>	-0.000698 (0.231)	-0.000679 (0.239)	-0.000703 (0.228)
<i>Trend</i>	0.0107** (0.0135)	0.0139*** (0.00762)	0.0107** (0.0140)
<i>Constant</i>	-0.131** (0.0493)	-0.185** (0.0212)	-0.133** (0.0487)
<i>Fighter Fixed Effects?</i>	Yes	Yes	Yes
<i>Observations</i>	7,154	7,154	7,154
<i>R-Squared</i>	0.657	0.657	0.656

Notes: Robust p-values in parentheses. *** p<0.01, ** p<0.05, * p<0.1 Regressions include fixed effects by Fighter, gender, win method, weight class, card placement, bout number, promoter, year, country and venue.

2. Additional Evidence Shows That the Challenged Conduct Suppressed Fighter Compensation Below Competitive Levels

188. As explained below, additional evidence that the Challenged Conduct suppressed Fighter compensation below competitive levels includes: (1) evidence that Zuffa has reduced the share of revenue paid to Fighters over time (as the degree of foreclosure rose); (2) evidence that Zuffa pays a significantly lower share of its revenues than Strikeforce (before the acquisition) or Bellator; and (3) a natural experiment in which Zuffa unilaterally restricted compensation of its Fighters by imposing a new sponsorship tax. In the absence of the Challenged Conduct, Zuffa's ability to suppress Fighter compensation in these ways would have been at least partially counteracted by increased competitive pressure from other MMA promoters.

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189. Zuffa's internal analyses indicate that Fighter compensation as a percentage of UFC event revenue has *decreased* over time, peaking at 25.8 percent in 2007, decreasing through 2013, and falling from 22.0 percent to 18.5 percent between 2010 and 2011, when Zuffa acquired Strikeforce and shut it down.⁴⁵⁷ A presentation prepared by WME-IMG, Zuffa's parent, includes analysis confirming that Fighter "costs" (Zuffa's payments to Fighters) fluctuated between 16 and 19 percent of revenue between 2012 and 2015.⁴⁵⁸ The presentation states that the risk of "Fighter Compensation Inflation"⁴⁵⁹ was "the most asked question by financing sources, and is a critical cost that we must actively manage."⁴⁶⁰ According to the document, Zuffa management intends to "contain" Fighter costs at no more than 20 percent of revenue.⁴⁶¹ Zuffa could not profitably control the share of revenue going to Fighters unless it wielded monopsony power. In 2007, Deutsche Bank marketing materials (prepared for Zuffa's lenders) indicated that "[t]he UFC believes that its dominant position in the MMA industry will allow them to contain fighter costs."⁴⁶² Thus Zuffa itself acknowledged it was able to suppress Fighter compensation as a result of its monopsony power. In a competitive labor market, Zuffa would not be to do so.⁴⁶³

190. Zuffa also pays Fighters a much smaller proportion of its revenue than did Strikeforce, a reasonable proxy for the competitive compensation share in the MMA industry.

457. ZFL-1484035 (all events); ZFL-1484036 (non-PPV events); ZFL-1484037 (PPV Events). Another internal Zuffa presentation estimates that Fighter compensation is 16% of total company revenue for all events occurring from 2006-2011. ZFL-1392468 at 69. One document indicates that 90 percent of Zuffa Fighters, including top tier Fighters, are "unhappy with compensation." See John Cholish: '90% Including Some Top Tier Fighters' Unhappy With UFC Pay, Full Contact Fighter (Friday, May 31, 2013), available at <http://fcfighter.com/post/john-cholish-says-90-including-some-top-tier-fighters-unhappy-with-ufc-pay>.

458. WME-ZUFFA-00001150 at *11.

459. *Id.*

460. *Id.*

461. *Id.*

462. DB-ZUFFA-00030406 at 07.

463. In a competitive labor market, compensation is set revenue paid to labor is determined by the productivity of labor, as opposed to the monopsony power of the firm that hires labor. See, e.g., ROY RUFFIN & PAUL GREGORY, PRINCIPLES OF MICROECONOMICS 331-336 (Harper Collins 5th ed. 1993); see also MICHAEL KATZ & HARVEY ROSEN, MICROECONOMICS 264-65, 276-77 (Irwin McGraw-Hill 3rd ed. 1998).

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Prior to its acquisition by Zuffa, Strikeforce paid about 60 to 70 percent of its event revenue to Fighters.⁴⁶⁴ Scott Coker, the former CEO of Strikeforce, explained that Strikeforce paid “minimum 68 percent of our gross income to our athletes pay structure... when we structured Strikeforce, we structured...[as] if there was a union.”⁴⁶⁵ This is nearly three times the level Zuffa pays its Fighters (60 percent versus 19 percent of revenues). Similarly, financial data produced by Bellator indicate that Bellator pays out approximately 45 percent of its revenue to Fighters—more than twice as much as Zuffa.⁴⁶⁶

191. Zuffa has also unilaterally and substantially reduced other forms of Fighter compensation profitably. Beginning in or about 2009, Zuffa began requiring that sponsors pay Zuffa a brand affiliation fee or “sponsorship tax” for the right to sponsor Fighters at UFC events.⁴⁶⁷ Prior to that, UFC Fighters were free to encourage sponsors to pay them to advertise on their uniforms in the Octagon, and many did so, earning substantial revenues.⁴⁶⁸ Zuffa extended the sponsorship tax to different categories of sponsors over time, increasingly diverting sponsorship revenue to Zuffa and away from Fighters.⁴⁶⁹ To be approved to sponsor a Fighter

464. In 2010, the year before it was acquired by Zuffa, Strikeforce paid fighters 72.5 percent of total event revenues. In 2011, the year it was acquired, it averaged 63.7 percent of revenues paid to fighters. *See* ZFL-1472338.

465. “When I was in business with the Silicon Valley Sports & Entertainment Group and half the company was owned by the group that owns the San Jose Sharks [i.e. pre-acquisition by Zuffa], we kind of set up our pay structure based upon like a hockey union would do. We paid minimum 68 percent of our gross income to our athletes pay structure. If there was a union, I don’t think that would take us off guard by any means because when we structured Strikeforce, we structured based around kind of like if there was a union.” *See* <http://www.mmafighting.com/2015/5/11/8581653/scott-coker-on-ufc-reebok-sponsorship-program-bellators-phones-been>

466. *See* Part VI.A, *infra*.

467. Batchvarova Dep. at 26:9-27:4 (“At the time apparel companies ... that were sponsoring athletes going into the octagon were paying an affiliation fee.”); *see also* ZUF-00017896, ZUF-00086103, LESPLAINTIFFS-0032374 at 74.

468. *See* Part I.D, *supra*.

469. *See* ZFL-2193737 (Aug. 4, 2009 email from Mersch to Nate Quarry: “The only changes in the sponsorship world pertain to tshirt/apparel companies... in short, any tshirt company wishing to sponsor UFC fighters must join the UFC approved sponsor program.”). *See also* ZFL-1974115 (Mersch writes: “NOTICE – For all Zuffa events going forward, only approved on-line retailers will be allowed to sponsor fighters. To that end, you must have a separately executed sponsorship agreement with Zuffa to be able to sponsor fighters for any events. This new policy will kick in

within a given category (such as apparel or supplements), sponsors were required to sign a “Brand Affiliation Agreement” or “League Affiliation Agreement” that required payment of the fee to Zuffa.⁴⁷⁰ When small sponsors could not afford the sponsorship tax, Fighters were obliged (if they already had a sponsorship relationship), to give them up, and if not, to turn them down.⁴⁷¹ In addition to driving many small companies away from sponsoring their chosen Fighters, these sponsorship taxes also forced the sponsor to negotiate directly with Zuffa, bypassing the Fighter entirely.⁴⁷² One agent stated that other MMA promoters do not impose a sponsorship tax, and

beginning with UFC 116 on July 3, 2010.”); ZFL-2152714 (Jun. 10, 2011 email from Mersch to Nate Quarry noting “Supplements – BSN is out as the ‘official’ sponsor of the UFC so the category is wide open but there will likely be another BSN type dominant player and then the rest will have to pay a fee to play in the space of probably between \$50K-\$500K depending on how much the primary wants to spend.”). In October 2011, after the BSN contract ended, Zuffa signed an agreement with Muscle Pharm that required Zuffa to charge other supplement companies an annual sponsor tax that increased depending on the number of individual Fighters being sponsored: \$15,000 for one Fighter; \$25,000 for two Fighters; \$50,000 for three to four Fighters; \$100,000 for five to eight Fighters; and \$200,000 for more than eight Fighters. *See* ZFL-1402629 at 29; ZFL-1402631 at 31 (“I have explained to you we are contractually required to abide by the schedule... We DO NOT have any discretion on this and cannot charge you less.”). *See also* ZFL-2482323 at 25 (Showing that the amount paid by the sponsor to Zuffa for the right to sponsor Fighters depends on the number of Fighters sponsored).

470. *See, e.g.*, ZFL-2177960 (In June 2011, Kristin Gifford writes: “At this point we do not have an executed League Affiliation Agreement with Tokyo Five. Therefore, Tokyo Five will not be allowed to sponsor UFC or Strikeforce fighters until the Agreement is completed.” At the time, the fee for apparel companies was \$50,000 to sponsor UFC Fighters, \$35,000 to sponsor Strikeforce Fighters, or \$75,000 to sponsor both. *Id.*; *see also* ZFL-2177961; ZFL-2244949, at 50 (In February 2010 Mersch writes to Nate Quarry: “if And 1 (or any other sponsor) doesn’t want to pay a fee or negotiate to pay to associate their brand name with the UFC brand, they’re not going to be part of our events and not going to be allowed to sponsor anyone.”).

471. *See* ZFL-2176645 (4/27/2011: Nate Marquardt’s sponsor won’t be able to afford sponsorship tax because they are only sponsoring the one fighter). *See also* ZFL-2205733 at 33 (7/11/2011: “Neither Jiu Jitsu Pro Gear nor Jacare’s other sponsors will be able to afford the annual \$35,000 sponsorship tax levied by Forza.”); ZFL-2582134 (UFC sponsor Hooligans United writes to Strikeforce in 2009, “I was just finalizing a deal with a manager for a UFC fighter I was going to sponsor but was nixed at the last moment when they put in my paperwork. Apparently the UFC wants to control how many clothing companies advertise/sponsor their fighters shirts/shorts and do so by weeding out the smaller guys like myself and by charging the bigger g[u]ys ie Affliction huge fees (meanwhile that’s less money for the actual fighters). I am just a (very) small company who was putting together some money to get a little exposure via the UFC route but as I said, they sq[u]ashed me!”).

472. Michael Mersch explains to a fighter asking about a potential sponsor: “The standard procedure is to have the prospective sponsors contact me directly and I will handle working out an agreement with them so they can sponsor you and other fighters in the UFC.” LEPLAINTIFFS-0028446. Mersch was also cavalier about the intended purpose of the sponsorship tax, stating in one email to a sponsor that the tax money was simply “money for Dana and Lorenzo.” ZFL-1367079. Another: “Well tell them to stop being cheap and pay me some money.” ZFL-1487968

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indicated that his client lost 55 percent of his promised net sponsorship amounts as a result of Zuffa's sponsorship policies.⁴⁷³

192. Record evidence indicates that Zuffa suffered no significant Fighter defections as a result of imposing the sponsorship tax.⁴⁷⁴ In response to a January 2009 article concerning Zuffa's sponsorship tax, Strikeforce executives wrote that the "UFC will be able to impose this solely on the basis that they are perceived as the pinnacle MMA organization for the majority of fighters as of today."⁴⁷⁵ Strikeforce declined to impose a sponsorship tax, reasoning that this tactic "could give [Strikeforce] a slight advantage in negotiations with fighters."⁴⁷⁶ However, only one Fighter (Dan Henderson) actually defected to Strikeforce, and Henderson's contract was eventually transferred back to Zuffa when it acquired Strikeforce. Zuffa proceeded to apply its sponsorship tax to Fighters from the newly acquired company.⁴⁷⁷ Accordingly, Zuffa's imposition of the sponsorship tax constitutes a natural experiment demonstrating Zuffa's ability to unilaterally and profitably restrict Fighter compensation, with other MMA promoters unable to provide competitive discipline in the labor market. In the absence of the Challenged Conduct, its ability to do so would have been curtailed.

473. *Id.* at 22-23 ("I know many promoters who do not ask for money and the fighters can get sponsors whoever [*sic*] they like..." The agent estimates that a Fighter that had previously netted \$200,000 "ends up with 130k less and nets only 70K" because of Zuffa's restrictive policies.). *See also* ZFL-2486240 (Unmarked document from Batchvarova's custodial files stating "Original structure – we take over apparel + sponsorship ... Look at reducing the numbers for the lower guys by 40%-50%.").

474. *See* ZFL-2244949. In response to concerns aired by Nate Quarry over new sponsorship policies, Michael Mersch wrote that: "I don't agree that the UFC [*is*] 'losing top fighters because of these policies.'"

475. ZUF-00418378.

476. *Id.*

477. *See* ZFL-1402822 at 23 (Agent for Alistair and Velnatijn complains on June 9, 2011 to Mersch that "What if they cant [*sic*] pay these sponsors, this was never an issue before you guys took over." Mersch responds "If they're not willing to pay for advertising like everyone else has to, that's their choice."). *See also* REV00089858, where Michael Mersch opines that Zuffa is not losing fighters due to these policies.

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3. The Challenged Conduct Restricted the Supply of Fighter Services

193. As explained below, Zuffa restricted the supply of Fighter services by consistently maintaining significantly more Fighters under contract than it could use, creating forced periods of inactivity during which Fighters were not paid and were not available to other MMA promoters to fight. In addition, Zuffa pursued a strategy of limiting the number of career paths available to Fighters. In the absence of the Challenged Conduct, Zuffa's ability to restrict the supply of Fighter services in these ways would have been at least partially counteracted by increased competitive pressure from other MMA promoters.

194. Zuffa was consistently able to keep Fighters bound by the exclusionary provisions in its contracts—and thus unavailable to other MMA promoters—while simultaneously promoting an insufficient number of bouts given the number of Fighters on its roster. Record evidence indicates that Zuffa was able to suppress the number of events that Fighters would participate below what Fighters would otherwise prefer,⁴⁷⁸ and that Zuffa consistently maintained significantly more Fighters under contract than it could use in bouts.⁴⁷⁹ In his deposition, Joe Silva

478. For example, in January 2015, Fighter Joe Benavidez texted Sean Shelby expressing frustration about the infrequency of his fights: "Damn it. I don't wanna only fight twice again this year. (Like I have 3 out of the last 4 years) I thought I had an opponent... What's the deal?" ZFL-1892287. Shelby replies, "You have an opponent. I have 40 other guys in your weight class and 60 bantamweights, 80 featherweights. And I have to create contenders above all else right now. A logjam I hope is over before summer[.]" ZFL-1892294. Benavidez then replies "I just feel I'm in my prime and only fighting twice a year. It's killing me dude." ZFL-1892308. Shelby responds at: "I'm doing the best I can right now." ZFL-1892315.

479. See, e.g., ZFL-2444687 (Joe Silva states in August 2011: "Have too many guys. Look how long it's taking me to get your other guys fights."); ZFL-1394508 (In December of 2012, Silva tells White, Fertitta and others that Zuffa has "way too many guys under contract right now".); Zuffa's Response to Plaintiffs' Request for Admission No. 22 (On February 22, 2013, Dana White stated publicly that "We have 470-something guys under contract, okay? We have over 100 guys too many. We have over 100 guys too many on the roster right now[.]"); Dana White Deposition Ex.72 (Dana White states in February 2013 "There's over a 100 guys. We're heavy."); TPS-0021184 (Joe Silva states in March 2013 "No space to bring in locals. Have to cut 100 guys."); ZUF-00325418 (Joe Silva states in January 2011 "I need to cut around 5 guys a show. If I cut 5 guys a show and don't sign anyone new for 10 shows I STILL have too many guys under contract."); Dana White Deposition Ex. 74 (Dana White states in October 2013 "I keep telling you guys our roster is too full. Guys have to get fights and it's like every time after a show when we cut a guy, and they're like "Fuck you Dana White, you're an idiot. This guy's the ..." Shut the f -- k up and let us run our business. The roster is too full."); Kevin Iole, *In cutting Jake Shields, UFC takes a page out of NFL's playbook*, YAHOO SPORTS, Apr. 7,

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testified that, from at least 2010 to 2015, he had “been complaining to managers and fighters and others” that Zuffa “had more fighters under contract than [Zuffa] had fights to give them.”⁴⁸⁰ Silva also testified that he kept Fighters under contract who he otherwise would have cut; his rationale was to keep these Fighters away from Bellator.⁴⁸¹ Kurt Otto, President and founder of a now defunct MMA promotion called the IFL, testified that it was his perception that Fighters at Zuffa were “collecting dust.”⁴⁸² Record documents discuss the “shelving” of Fighters by Zuffa.⁴⁸³

195. In the absence of the Challenged Conduct, the excess Fighters on Zuffa’s roster could have earned income from other promoters, rather than being bound to Zuffa during periods of forced inactivity (during which they did not get paid). Put differently, Zuffa restricted the demand for Fighter services, by restricting their opportunities to earn income (given that Fighters are paid for bouts only when they fight).

196. This evidence is corroborated by a case study of the UFC by Jesse Baker and Matthew Thomson, which notes that the UFC’s strategy of “limiting the number of avenues that

2014, available at <https://sports.yahoo.com/news/in-cutting-jake-shields--ufc-takes-a-page-out-of-nfl-s-playbook-203152661-mma.html> (In April 2014, Dana White states “We have 500 guys under contract, which is a lot more than we really need...”); ZFL-2699674 (In January 2015, Joe Silva writes to Ryan Hass “Don’t want too [sic] sign more guys. Have too many now[.]” and writes to Giberto Faria “Wat [sic] took [sic] many guys under contract.”); *id.* (In February 2015, Silva writes “I have a backlog of guys who need fights at the moment...” and “Right now people are lucky to get a fight at all.”).

480. Deposition of Joseph Silva at 257:8-15. *See also* ZFL-2206472 (Joe Silva states in November 2010 “With the WEC merger I have too many guys right now so openings are sparse.”); ZFL-2206527 (Joe Silva states in December 2010 “With the WEC merger have 70 fighters too many under contract. I have some guys who are going to be waiting 6 months for a fight.”); ZFL-2206534 (Joe Silva states in December 2010 “With the WEC merger I have 70 more contracts than I can really handle so my life is going to be miserable for a while.”).

481. *See* Silva Exh. 28 (explaining that Silva “would love to cut [fighter Rogerio Nogueira] but he would just end up fighting [former UFC champion] Rampage in Bellator.” Silva testified that cutting Nogueira “would just be handing [Bellator] something easy ... [a] [c]redible name.” Silva Dep. at 304:24-306:12. Zuffa elected not to cut Nogueira *Id.* at 307:4-7. Silva also admitted that if Nogueira had been matched against Rampage, this would “improve Bellator’s ability to put on a successful event.” Silva Dep. at 307:19-308:2.

482. Deposition of Kurt Otto, February 6, 2017, 116:4-25.

483. ZFL-2642993 (January 2008 email from the agent for Andrei Arlovsky, a former UFC Heavyweight Champion, stating that “It is extremely damaging to Andrei’s career to be shelved for such a long period of time [more than one year]”); *see also* ZFL-2699696 (text to Sean Shelby from Angela Hill (1301653003) on June 20, 2015 at 22:25, stating “Can you tell me if I’m going to be shelved again for 6 months? I’m really strapped for cash and need to figure something out if so.”).

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young fighters could take to pursue careers in the sport of MMA seemed counter-intuitive, especially while simultaneously attempting to grow the organization.”⁴⁸⁴ In the absence of the Challenged Conduct, Zuffa’s ability to restrict Fighter career paths would have been curtailed, because these Fighters would have had more viable paths for pursuing their careers with other MMA promoters.

4. The Challenged Conduct Inflated the Price of Live MMA Events

197. As explained below, Zuffa has implemented substantial price increases over time, including a 24 percent PPV price hike between 2010 and 2015, a time period during which Zuffa’s foreclosure of the Relevant Input Market and Submarket increased significantly, and during which Zuffa acquired Strikeforce. In the absence of the Challenged Conduct, Zuffa’s ability to do so would have been curtailed.

198. Zuffa’s internal documents emphasize that the UFC has the “[t]op priced ticket in U.S. sports,” with average PPV prices increasing from an average of \$81 to more than \$250 from 2001 to 2009.⁴⁸⁵ Zuffa documents also indicate that UFC events were priced at a substantial premium relative to the NFL, NHL, WWE, and MLB.⁴⁸⁶ A 2012 presentation by The Raine Group explains that “Fans Pay More for UFC,”⁴⁸⁷ noting that “UFC events offer a premium consumer

484. Jesse Baker & Matthew Thomson, *The Ultimate Fighting Championships (UFC): The Evolution of a Sport*, in CASES IN MARKETING MANAGEMENT 114 (SAGE Publications, Kenneth E. Clow & Donald Baack, eds., 2011). See also ZFL-2499718 at 18 (November 2011 email from agent Leland Labarre on behalf of Josh Barnett to Sean Shelby and Michael Mersch at Zuffa indicating that Zuffa was able to suppress the number of events that Fighters would participate below what Fighters would otherwise prefer: “I am disappointed with the aggressiveness of your position. As you know, a fight every 4 months or so would be typical for MMA fighters, whose career primes are generally short. Conversely, a 4-fight deal with a 5-year exclusive term is unheard of. The interpretation you have provided is simply unreasonable.”).

485. See ZFL-2508548, at 567. Another document states that PPV event ticket prices increased from \$81 in 2001 to \$299 in 2009. See ZFL-2279086 at 94.

486. See ZFL-2508548, at 567; see also ZFL-1243128, at 35.

487. See ZFL-1544038 at 62.

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experience,”⁴⁸⁸ and demonstrating that UFC’s average ticket price for major international live-sporting events differs substantially from other sports including NFL, FIFA, and Formula 1.⁴⁸⁹

199. One Zuffa document notes that “[p]rice increases for PPV transactions have also shown inelastic demand characteristics, even during the economic slowdown.”⁴⁹⁰ Zuffa’s market research indicates that demand was insensitive to price hikes.⁴⁹¹ A Raine Group document notes that a PPV price increase in 2015 “had no material impact on number of PPV buys.”⁴⁹²

200. Analysis by WME-IMG demonstrates that Zuffa has restricted the number of PPV events while substantially increasing PPV prices between 2010 and 2015. As seen in Figure 1, Zuffa’s foreclosure of the Relevant Input Market and Submarket has increased significantly over that time period, which also encompasses the Strikeforce acquisition.

201. According to a June 2016 presentation, Zuffa produced 15 PPV events, and sold 7.7 million residential PPV buys in 2010 (or roughly 513,000 buys per event), the year before the

488. *Id.*

489. *Id.*

490. October 2009 UFC Public Lender Presentation, ZFL-2279086 at 9; ZUF-00162329-382 at 43. At the deposition of Deutsche Bank’s corporate designee, Drew Goldman, Deutsche Bank testified that Zuffa provided Deutsche Bank with data demonstrating that price increases for “pay per view buys and that regardless of economic conditions, that [Zuffa has] been able to continue to increase pricing.” Goldman 30(b)(6) Tr. 119:9-121:6 (discussing October 2009 Confidential Information Memorandum, DB-ZUFFA-00056900, at -936). Zuffa was provided the opportunity to edit that statement and did not. See Goldman 30(b)(6) Tr. 132:8-24 (discussing handwritten edits to the October 2009 Confidential Information Memorandum, DB-ZUFFA-00043567, at 0572).

491. ZFL-2472830 at 1 (“Pay-Per-View Buys ... Tracking to be the 2nd ranked event of all-time despite price increase. HD market share does not appear to be impacted by price.”); ZFL-2530042 at 50 (June 2015 UFC Board Update Presentation: “\$5 price increase in the U.S., which was introduced with the January 3rd UFC 182 event, does not appear to have negatively impacted buy rates.”). See also ZFL-1063442 (“We are modeling \$5 SRP increases in 2015 and 2018. The \$5 increase in 2015 is long overdue as we haven’t raised prices since 2006. We are not particularly concerned with price sensitivity as we experimented with a one-time price increase with UFC 168 and still generated the highest buys of 2013); ZFL-1084185 – 10/9/13 Mulkey says “our research shows the market will bear [a price increase].”); ZFL-1056382 (02/21/15 Markup of financial statement and factual commentary by CFO John Mulkey. “On January 3 (UFC 182: Jones vs. Cormier) we introduced a \$5 price increase in the US which was met with little to no discernible pushback [and will remain]” (handwritten note)); ZFL-1073120 (“On January 3, [2015] UFC 182, Jones v. Cormier, we introduced a \$5 price increase in the U.S. which was met with little to no discernible pushback.”).

492. See RAINE0018791 at 802.

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Strikeforce acquisition.⁴⁹³ In 2015, Zuffa produced only 13 PPV events, and sold 6.4 million residential PPV buys (or roughly 492,000 buys per event). Yet even though the *quantity* of PPV buys decreased (from 7.7 to 6.4 million residential PPV buys), Zuffa's residential PPV *revenue* increased over this period, from \$191 million in 2010⁴⁹⁴ to \$196 million in 2015.⁴⁹⁵ Therefore, from 2010 to 2015, Zuffa's residential PPV output declined by approximately 17 percent,⁴⁹⁶ while its revenue increased by about 2.6 percent,⁴⁹⁷ implying that Zuffa increased its average residential PPV price by about 24 percent⁴⁹⁸ over this same interval.

202. Zuffa therefore implemented a price hike of 24 percent to its residential PPV customers while restricting its output by 17 percent. In the absence of the Challenged Conduct, Zuffa's ability to implement these price increases above competitive levels would have been curtailed.

5. The Challenged Conduct Restricted Output of Live MMA Events

203. As explained immediately above, Zuffa has implemented a significant and profitable restriction in PPV output. The same WME-IMG presentation shows that Zuffa's supply of PPV events fell in each full year since 2010, from 15 to 16 events per year from 2010 to 2011, to only 12 to 13 events per year from 2012 to 2015.⁴⁹⁹ And because Zuffa was essentially the only

493. WME-ZUFFA-00001150 at *9 (In 2010, Zuffa averaged 514,000 residential PPV buys per event over 15 events, for a total of approximately 7.7 million residential PPV buys).

494. See ZFL-2603702 (recording residential PPV revenue of \$190.5 million in 2010).

495. WME-ZUFFA-00001150 at *22 (reporting \$196 million in residential PPV revenue for 2015).

496. Equal to $[6.4 \text{ million}] / [7.7 \text{ million}] - 1$.

497. Equal to $[196 \text{ million}] / [191 \text{ million}] - 1$.

498. Let Zuffa's 2010 residential PPV price and quantity be denoted P and Q , and denote Zuffa's 2010 residential PPV revenue as $P * Q = R$. In 2015, Zuffa's quantity is equal to $Q * (1 - 0.17)$, and its revenue is equal to $R * (1 + 0.026)$. Therefore, Zuffa's 2015 price is equal to $[R * (1.026)] / [Q * (0.83)] = [R/Q] * 1.24 = [P] * 1.24$.

499. WME-ZUFFA-00001150 at *9.

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MMA promoter with PPV events over this timeframe (Bellator had a single PPV event in 2014),⁵⁰⁰ this means that the industry supply of PPV events was also restricted. In the absence of the Challenged Conduct, Zuffa's ability to restrict the output of PPV events in would have been curtailed.

204. In addition, as explained below, the Challenged Conduct has restricted the output of Live MMA Events generally since 2010, a time period encompassing both a large increase in Zuffa's foreclosure of the Relevant Input Market and Submarket, and Zuffa's acquisition of Strikeforce.⁵⁰¹ This has caused industry output of Live MMA Events to fall (both in absolute terms and relative to prior trends) because the output of Live MMA Events by non-Zuffa promoters has fallen off sharply, with Zuffa's supply of Live MMA Events not increasing by enough to make up for the difference. This indicates that the Challenged Conduct suppressed the output of other MMA promoters. In the absence of the Challenged Conduct, Zuffa's ability to restrict industry output would have been at least partially counteracted by other MMA promoters, who would have been less constrained.

205. Figures 4A – 4C below plot Live MMA Events over time for (1) Zuffa; and (2) the non-Zuffa promoters encompassed by the Relevant Input Market and Submarket. In each of these Figures, the number of Zuffa events has increased over time, while the number of non-Zuffa events has decreased. Significantly, the total supply of Live MMA Events actually *declined* since 2010: Events produced by other MMA promoters have fallen off sharply, while Zuffa's supply of Live MMA Events have not increased sufficiently to make up for the difference.

500. See <https://www.bloodyelbow.com/2017/6/25/15870964/spike-executive-bellator-nyc-the-first-of-many-ppv-events-running-mma-news> (stating that Bellator's debut PPV event was in 2014; Bellator hosted its second-ever PPV event in June 2017).

501. See Figure 1, *supra*.

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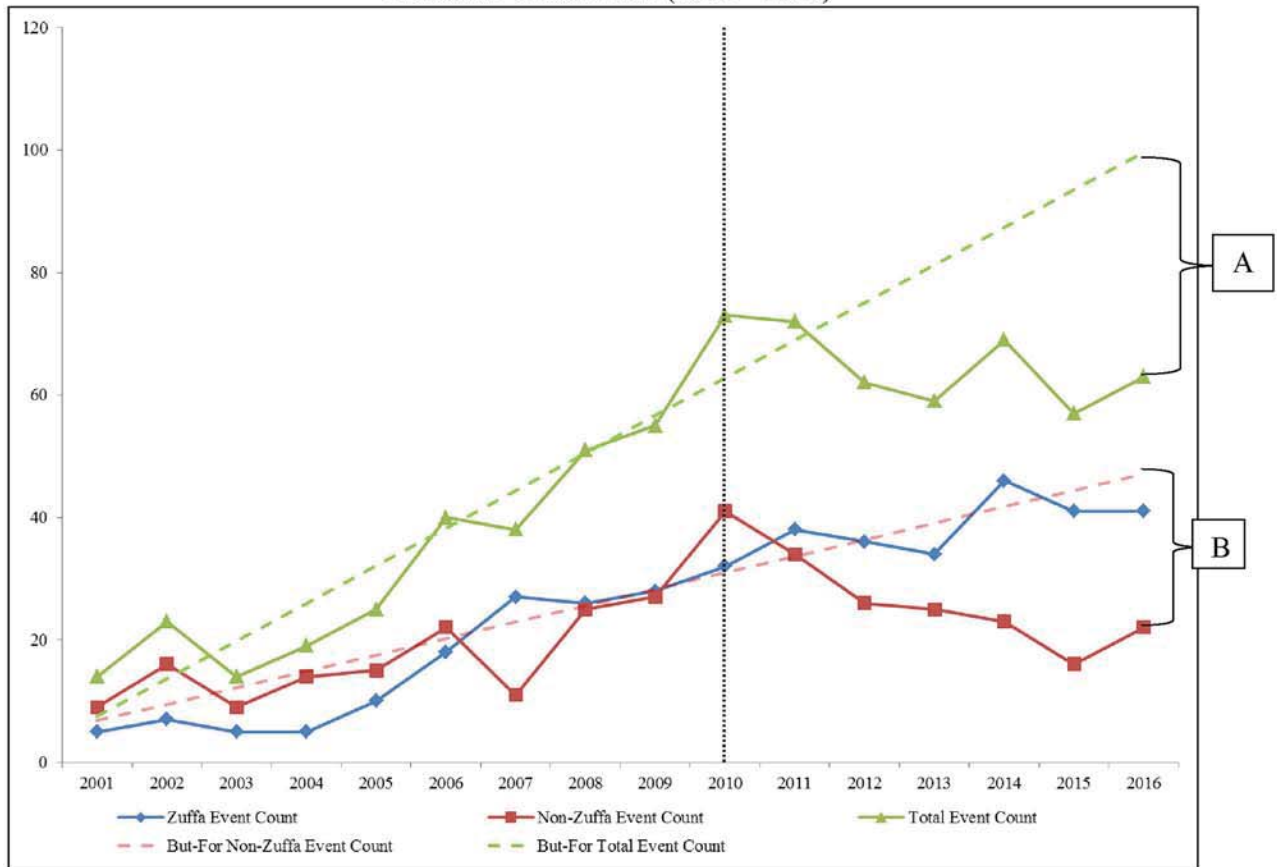
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206. Figure 4A displays the supply of Live MMA Events by Zuffa and non-Zuffa promoters encompassed by the Tracked measure of the Relevant Input Market. (Figure 4A includes only events featuring at least one Tracked Fighter). The dashed lines in Figure 4A illustrate the path of other Live MMA Events and total Live MMA Events assuming, after 2010, they had grown at the same rate as they had previously. Had earlier (pre-2011) trends persisted, the supply of events would have increased substantially, relative to actual levels. This can be seen in the vertical distance (labeled “A”) between the projected total output and actual output as of 2016. This drop is driven primarily by the vertical distance labeled “B,” which gives the difference between projected non-Zuffa output and actual non-Zuffa output.

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FIGURE 4A: SUPPLY OF LIVE MMA EVENTS BY ZUFFA AND NON-ZUFFA PROMOTERS
 “TRACKED” DEFINITION (2001 – 2016)



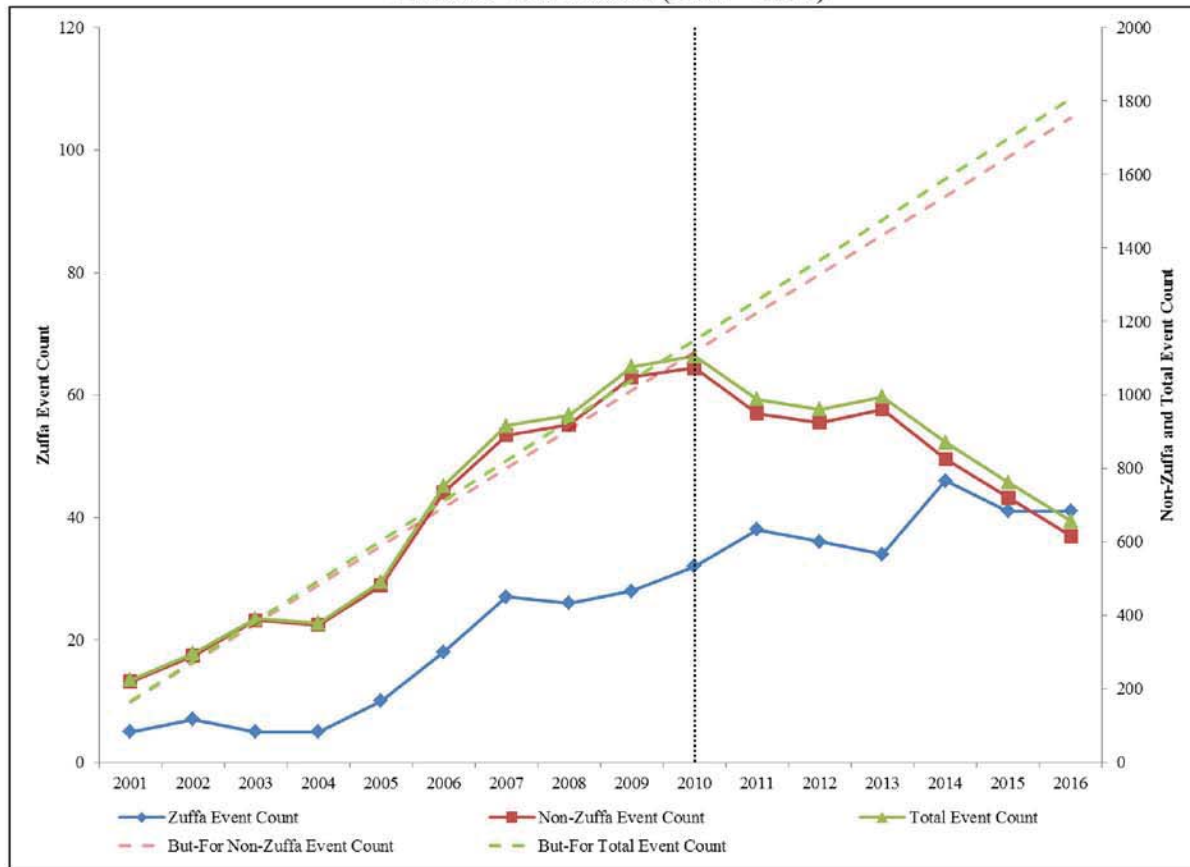
Note: Non-Zuffa Promoters include those encompassed by the Tracked definition of the Relevant Input Market. Only events featuring at least one Tracked Fighter are displayed.

207. Similar patterns are observed when the Ranked measure of the Relevant Input Market and Headliner Submarket are used. As seen below, regardless of how the markets are defined, total output of Live MMA Events since the Strikeforce acquisition has decreased, both relative to prior trends and in absolute terms. In each case, the decline is driven by a drop in non-Zuffa events, with Zuffa’s supply of Live MMA Events not increasing by enough to make up for the difference. (Figure 4B includes only events featuring at least one Ranked Fighter; Figure 4C includes only events featuring at least one Headliner).

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FIGURE 4B: SUPPLY OF LIVE MMA EVENTS BY ZUFFA AND NON-ZUFFA PROMOTERS
 “RANKED” DEFINITION (2001 – 2016)

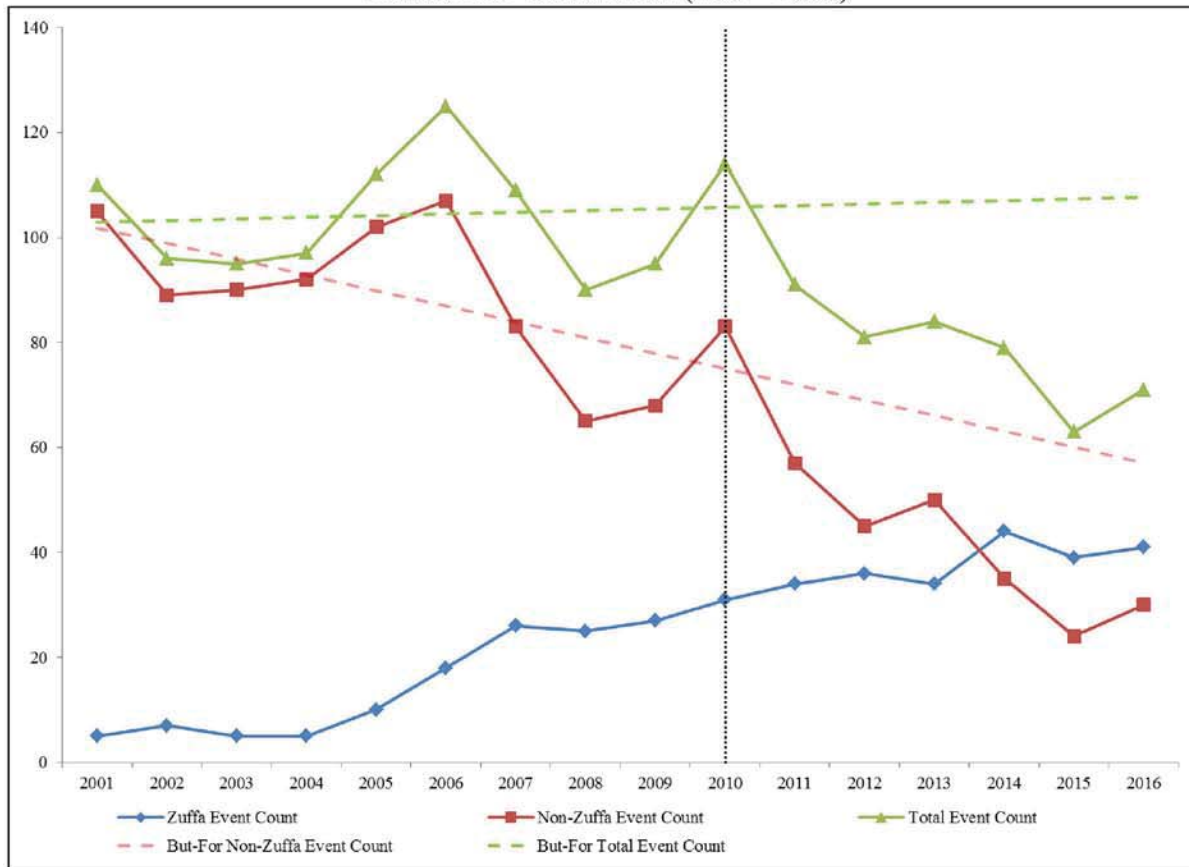


Note: Non-Zuffa Promoters include those encompassed by the Ranked definition of the Relevant Input Market. Only events featuring at least one Ranked Fighter are displayed.

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FIGURE 4C: SUPPLY OF LIVE MMA EVENTS BY ZUFFA AND NON-ZUFFA PROMOTERS
“HEADLINER” SUBMARKET (2001 – 2016)



Note: Non-Zuffa Promoters include those encompassed by the Headliner definition of the Relevant Input Market. Only events featuring at least one Headliner are displayed.

6. All Evidence and Analysis of Anticompetitive Effects Is Common to the Classes

208. All of the evidence of anticompetitive effects I have discussed in this report, and my analyses of that evidence, are common to the Classes as a whole. If I were asked to analyze anticompetitive effects for any single member of either Class, the evidence and analysis would be the same.

IV. COMMON IMPACT ON THE BOUT CLASS

209. In this section, I show that common impact can be demonstrated with respect to Bout Class Members using two separate, mutually reinforcing, methods. The first method is a standard, two-pronged, class-wide approach that has been accepted in prior antitrust litigation,

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including in *High-Tech Employee* and in *Arizona Travel Nurses*.⁵⁰² Under this method, the first prong involves a determination as to whether classwide evidence is capable of showing that the Challenged Conduct had a generally suppressive effect on compensation Zuffa paid to members of the Bout Class. The second prong of the first method involves determining whether there is class-wide evidence of a mechanism that would transmit the artificially reduced compensation (found by the first prong) broadly across the Class.

210. The second method—also successfully employed in antitrust class actions to demonstrate common impact—uses standard, class-wide econometric techniques to demonstrate that the vast majority of Class Members received lower compensation than they would have in the but-for world. Under this second method, my econometric model compares the compensation actually received by each Class member to the amount that he or she would have received in the but-for world. Using this information, I then compute what proportion of Class members were artificially undercompensated due to the Challenged Conduct. This method, like the first, has been accepted in prior antitrust litigation.⁵⁰³

A. The Challenged Conduct Suppressed Bout Class Compensation

211. As explained above, the Challenged Conduct substantially foreclosed rivals from key inputs necessary to compete effectively, including most importantly access to the top-ranked

502. I was the plaintiffs' economic expert in *Arizona Travel Nurses*. I have also served as expert for plaintiffs in other classes that have been certified based in part on my proof of common impact, including most recently *In Re Lidoderm Antitrust Litigation*. The district court accepted my methodology for proving antitrust impact in *Johnson v. Arizona Hospital & Healthcare Ass'n*, No. CV 07-1292-PHX-SRB, 2009 WL 5031334 (D. Ariz. 2009) at *8, 11. The same "two-step" methodology utilized in *Johnson* was accepted by the court in *In re High-Tech Employee Antitrust Litigation*, Case No. 11-CV-2509-LH, *Order Granting Plaintiffs' Supplemental Motion For Class Certification* (Oct. 24, 2013) at 53 ("Plaintiffs noted that Dr. Leamer's approach followed a roadmap widely accepted in antitrust class actions that uses evidence of general price effects plus evidence of a price structure to conclude that common evidence is capable of showing widespread harm to the class."). See also, e.g., *Johnson*, 2009 WL 5031334 at *8, 11 (finding predominance where conduct was alleged to suppress bill rates for nurses generally and evidence was presented that bill rates were correlated with nurse pay rates); Caves & Singer, *supra*, at 5.

503. See, e.g., *In re Air Cargo Shipping Servs. Antitrust Litig.*, No. 06-MD-1775 JG VVP, 2014 WL 7882100 (E.D.N.Y. Oct. 15, 2014).

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Fighters. Because the Challenged Conduct impaired would-be rivals in their ability to compete, Zuffa exercised its market power over Fighters to a greater extent than it could have otherwise. In particular, the classwide regression analysis presented in Part III.D.1 above demonstrates that the Challenged Conduct reduced the share of Event Revenue Zuffa paid to the members of the Bout Class, thereby artificially reducing compensation to the Bout Class overall. The question for common impact is whether this effect was transmitted broadly across the Bout Class.

B. Common Evidence of a Compensation Structure Is Capable of Demonstrating That Compensation Suppression Was Broadly Experienced Across Bout Class Members

212. As explained below, Zuffa's compensation practices differed as between the bottom 80 percent of Fighters, whose pay was largely predetermined by fixed schedules, and those of the top 20 percent, whose compensation was partially determined by similar formulaic aspects to the bottom 80 percent, but also included components such as Letters of Agreement and PPV agreements. My analysis shows that both groups would have seen higher Event Compensation⁵⁰⁴ in the but-for world because Zuffa would have had to compete more aggressively against other MMA promoters to secure the services of all Fighters. In other words, but for the Challenged Conduct, more robust MMA rivals would have increased competition for all levels of Zuffa Fighters, not just some limited subset. Fighters in the bottom 80 percent would have enjoyed higher compensation through, at minimum, upward adjustments in Zuffa's standard compensation schedules. Fighters in the top 20 percent would also have benefitted from such adjustments to standard compensation schedules, and would also have benefitted further from increased bargaining leverage when determining the additional components of their compensation packages. As Scott Coker, former CEO of Strikeforce and current President of Bellator, explained in his

⁵⁰⁴. As explained in Part III.D.1, Event Compensation includes compensation from (1) show and win purses, (2) discretionary/performance pay, (3) PPV royalties, and (4) letters of agreement.

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deposition, if Zuffa is the only viable alternative for Fighters (as he believed it would effectively be after Zuffa's acquisition of Strikeforce),⁵⁰⁵ the effect is to depress compensation generally:

[I]f there's only one place to have a job, and then, there's only a certain amount of slots available to have employment, the fighter purses naturally would go down because now you're in control of the marketplace. So now, *you can dictate what an entry [level] fighter would get and what a mid-tier fighter would get, what a top-tier fighter would get.* And you kind of control the marketplace at that point.⁵⁰⁶

This generalized suppression of compensation as the number and vitality of bidders for workers' services is reduced is just what is predicted by elementary economics, which shows that a monopsonist suppresses compensation to all of its labor inputs, just as a monopolist raises prices to all of its customers. Monopsony power is the mirror image of monopoly power;⁵⁰⁷ the harm to competition from monopsony is directly analogous to the harm from monopoly.⁵⁰⁸ A monopolist harms buyers by charging them a price above the competitive level; a monopsonist harms sellers by paying them a price below the competitive level.

213. Another mechanism transmitting suppressed compensation across all or almost all members of the Bout Class consists of a formulaic compensation structure, driven by observable common factors such as such as weight class, Fighter rank, gender, placement on the card, win/loss record, and so on, combined with (and mediated by) Zuffa's implementation and enforcement of the economic concept of "internal equity," under which Zuffa ensured that similarly situated

505. As explained above, Coker likened Strikeforce to "Luke Skywalker" and the UFC to "Darth Vader and the Death Star." Coker Exh. 8; Coker Dep. at 95:10-20.

506. Coker Dep. at 97:18-99:3 (emphasis added).

507. U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines* (2010) [hereafter *Merger Guidelines*], §1; §12. See also MODERN IO at 107-110.

508. MODERN IO at 107-110; see also *Merger Guidelines* §1 ("Enhancement of market power by buyers, sometimes called 'monopsony power,' has adverse effects comparable to enhancement of market power by sellers. The Agencies employ an analogous framework to analyze mergers between rival purchasers that may enhance their market power as buyers"). See also §12. See also *Johnson v. Ariz. Hosp. & Healthcare Ass'n (AzHHA)*, No. CV 07-1292-PHXSRB, 2009 WL 5031334 (D. Ariz. July 14, 2009); *Vogel v. Am. Soc'y of Appraisers*, 744 F.2d 598, 601 (7th Cir. 1984) (stating that monopoly and monopsony are "symmetrical distortions of competition") (quoted in *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, 549 U.S. 312, 322 (2007)).

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Fighters received similar compensation, and that differences in compensation could be explained by known or knowable factors.

214. Internal equity—also referred to by economists as wage compression—is the notion that laborers doing comparable work believe that they should receive similar compensation. As a forthcoming article in the *Quarterly Journal of Economics* notes, “a long tradition in economic thought—as well as in psychology, sociology, and organizational behavior—has advanced the notion that individuals also care about their pay relative to that of their co-workers.”⁵⁰⁹ Because employees value internal equity, employers respond by implementing uniform compensation structures that pay comparable compensation for comparable work. One textbook explains that “[p]ay structure refers to the array of pay rates for different work or skills within a single organization,”⁵¹⁰ and refers to examples of pay structures at companies such as Merrill Lynch and Lockheed Martin.⁵¹¹ Payroll software companies offer advice to employers on achieving internal equity:

Internal equity is the comparison of positions within your business to ensure fair pay. You must pay employees fairly compared to coworkers. Employees must also perceive that they are paid fairly compared to their coworkers. Otherwise, they might feel undervalued and leave. It is easy for employees to find out how much other employees earn via the Internet and word of mouth. If an employee works hard but is paid less than her coworkers who do not work as hard, she might become upset about her wages. When you adopt a straightforward and honest payment system, your employees will believe that they are being paid fairly and with equality. This boosts company morale and employee loyalty, bringing many benefits in the long run....

509. Emily Breza, Supreet Kaur & Yogita Shamdasani, *The Morale Effects Of Pay Inequality*, QUARTERLY J. ECON. (forthcoming 2017), available at: <https://sites.google.com/view/ebreza/research>. See also Caves & Singer, *supra*; GEORGE MILKOVICH, JERRY NEWMAN & BARRY GERHART, COMPENSATION 69 (10th ed. McGraw-Hill 2011) (“Internal alignment, also called *internal equity*, refers to the pay relationships among different jobs/skills/competencies within a single organization.”) (emphasis in original).

510. Milkovich, et al., *supra*, at 69.

511. *Id.* at 69-73.

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To create fair pay, you compare employees who do similar jobs for your company. You should consider the tasks your employees do. *If two employees perform similar tasks, they should earn similar wages.*⁵¹²

215. As explained below, there is substantial documentary evidence indicating that the compensation paid to Zuffa Fighters followed a formulaic compensation structure driven, in part, by considerations of internal equity. In addition, I provide econometric evidence indicating that approximately three-quarters of the variation in observed Fighter compensation (in absolute levels) is accounted for by observable common factors (as opposed to individualized factors). I also demonstrate empirically that individual Fighter compensation per event moves together with the per-event compensation paid to other Fighters, both within and across years. Put differently, the gains (or losses) in compensation are shared broadly across Class members.⁵¹³ This evidence demonstrates that Zuffa follows a compensation structure driven by considerations of internal equity, which implies that the compensation-suppressing effects of the Challenged Conduct were not confined to a subset of Class members, but instead were broadly shared across the Class.

1. Documentary Evidence of a Compensation Structure

216. Record evidence indicates that Zuffa's contracts specify formulaic schedules of show and win payments.⁵¹⁴ According to a 2010 UFC Due Diligence presentation, UFC compensation generally falls into different tiers, depending on the "ability and notoriety" of

512. Patriot Software, *Payroll Blog: Payroll Training, Tips, and News*, available at: <https://www.patriotsoftware.com/payroll/training/blog/what-is-internal-equity/> (emphasis added). See also Stacey Carroll, "Does Your Company Have Internal Pay Equity?" available at: <http://www.payscale.com/compensation-today/2009/03/importance-of-internal-pay-equity>

513. A similar approach was used to demonstrate a compensation structure in *High-Tech Employee*. See Caves & Singer, *supra*, at 5.

514. I review the forms of Fighter compensation paid by Zuffa, including show and win payments, in Part I.C above.

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Fighters.⁵¹⁵ Fighters' show and win purses are nearly always identical to each other; the winner of a fight doubles his or her base pay.⁵¹⁶ A win in a prior bout typically entitles a Fighter to higher show and win purses in the next event, with the increase occurring in fixed increments, typically between \$2,000 and \$5,000. A loss in a prior bout typically does not lead to any guaranteed increase in the show and win purses payable in the next bout.⁵¹⁷ In his deposition, UFC's Joe Silva confirmed that "under our standard agreements a fighter only moves up in compensation if he wins. If a fighter does not win [and we] elect not to terminate the fighter his following bout stays at the same amount as previous fight."⁵¹⁸

217. The schedule of show and win purses depends on a Fighter's experience level and prior win/loss record. All else equal, a relatively obscure Fighter new to the UFC signing his or her first contract would be placed on a lower compensation schedule than a highly ranked Fighter with a record of wining in the UFC who has already fought pursuant to one or more Zuffa contracts.⁵¹⁹ For example, [REDACTED]'s first contract with Zuffa specifies show and win purses of \$7,000 each for his first bout, increasing in increments of \$2,000 with each win, up to a maximum of \$15,000.⁵²⁰ (This show/win schedule can be expressed as "7/7, 9/9, 11/11, 13/13, 15/15.")⁵²¹ Joe

515. ZFL-1382453 (noting that compensation "varies depending on ability and notoriety of Fighters. Generally Fighters are categorized into 3 tiers: a) Entry level - typically Fighters coming off The Ultimate Fighter Reality Show; b) Mid-tier level - emerging stars; c) Top-tier - proven stars who on certain occasions receive a portion of pay-per-view receipts").

516. See, e.g., ZFL-0000003.xls (spreadsheet showing show and win purses).

517. See, e.g., ZFL-0198252, 257 ("Fighter's Purse for the first Bout shall be Fifteen Thousand Dollars...If and only if Fighter is declared the winner of the first Bout, Fighter's purse for the second Bout shall be Seventeen Thousand Dollars....").

518. Silva Dep. at 341:11-20 ("Q. With respect to your question on how our compensation structure works, under our standard agreements a fighter only moves up in compensation if he wins. If a fighter does not win [and we] elect not to terminate the fighter his following bout stays at the same amount as previous fight? Do you see that? A. Yes. Q. That's accurate; right? A. Yes.").

519. See, e.g., ZUF-00140700 ("Most any new fighter (not world ranked) at the lower weights will be coming into UFC at 6k+6k.").

520. See ZFL-0504268, 273-274 (contract signed 12/30/2008).

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Silva confirmed the same structure in his deposition.⁵²² Plaintiff Nate Quarry signed a new Zuffa contract in 2008, after having won five out of six prior UFC bouts since 2005.⁵²³ That contract specifies show and win purses of \$25,000 each for the first bout of the contract, increasing in increments of \$5,000 with each win up to a maximum of \$50,000.⁵²⁴ (This compensation schedule can be expressed as “25/25, 30/30, 35/35, 40/40, 45/45, 50/50.”).⁵²⁵

218. Internal documents indicate that Zuffa management recognized the formulaic nature of the compensation schedules Zuffa used to design its Fighter contracts.⁵²⁶ In an internal email discussing Fighter pay, UFC matchmaker Sean Shelby wrote:

[G]oing forward please go up by 2's most all of the time for the Strikeforce events, especially for a guy like Conor [McGregor]. For reference we start the majority of guys coming in at 6+6 in UFC and always go up by 2's. To separate the challenger guys, top them out at 5 whenever possible. I get it if it ends up at 6K if signing a lot of fights for the Challengers. I say 5K to differentiate the two shows. I know it sounds like we are nickel and diming but it's for the *uniformity of it all* and makes it so much easier for everyone the more boilerplate it is at the mid to lower end.⁵²⁷

521. Simpson's contract superseded another contract signed just months earlier with (Zuffa-owned) WEC, which was governed an identical show/win schedule (7/7, 9/9, 11/11, 13/13 15/15). See ZFL-0504287 at 292-294 (contract signed 9/4/2008).

522. Silva Dep. at 338:24-339:14 (“Q. Okay. And the way the contracts were structured, is it fair to say that they're structured so that if a fighter wins they move to the next level in the contract? A. That's correct. Q. If they lose they stay at same level? A. That is accurate. Q. So a contract can have 10 and 10 and 12 and 12 and if fighter wins 10 and 10 they move to the 12 and 12? A. Correct if they lose 10 and 10 they stay at 10 and 10 for the next fight. A. Yes. Correct.”).

523. ZFL-0000003.xls (showing Quarry's win/loss record back to 2005).

524. ZFL-0003018, 022-024.

525. See also ZFL-0827347 (Correspondence among Zuffa management refers to a “new structure” governing compensation for the winner of The Ultimate Fighter (“TUF”) competition, described as “a 9 fight deal,” show/win compensation starting at \$17,000 and increasing in increments of \$2,000, and proposing “10 fights/50 months” for the “world title contract,” noting “[t]hat's a really good deal for us to have a world champ locked up for that long and is much more than fair...Under our new structure the winner of TUF gets a 9 fight deal at...17+17 19+19 21+21 23+23 25+25 27+27 29+29 31+31 33+33.”)

526. See ZFL-1908119 (“I don't think there should be a segmentation between the champion and runner-up on pay scale. They should all be 10/10, 12/12, etc. with the only difference being that we have the obligation to sign champion whereas we don't have to sign the runner-up. I have a hard time seeing why the champ would jump to 17/17, it's a gift that we are even signing him to UFC.”).

527. ZUF-00122280 at 80 (emphasis added). Note: Strikeforce Challengers was an MMA series produced by Strikeforce and Showtime to highlight upcoming Fighters. See, e.g., <http://www.sherdog.com/news/news/Strikeforce-Challengers-20-Draws-143000-Viewers-on-Showtime-37424>

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219. In his deposition, Mr. Shelby testified that when it comes to Fighter compensation, “you have to have some sort of uniformity.”⁵²⁸ As Mr. Shelby explained, that variation is also based on the relative ranking of Fighter’s skills as compared to each other, “so you ... have to have some sort of reason to have separation between the fighters.”⁵²⁹ He went on to explain that comparable Fighters are paid alike, stating that “[s]o if you see people in similar situations ... in the first or second contract they’re going to get compensated similarly....”⁵³⁰

220. As seen below, a January 2015 document titled “Minimum Fighter Pay”⁵³¹ displays a tiered show/win schedule for “Current (\$8k min).”

FIGURE 5: COMPENSATION STRUCTURE
FROM “MINIMUM FIGHTER PAY” DOCUMENT

Fighter Contracts		
	Current (\$8k min)	
First Contract	\$8,000	\$8,000
	\$10,000	\$10,000
	\$12,000	\$12,000
	\$14,000	\$14,000
Second Contract	\$17,000	\$17,000
	\$20,000	\$20,000
	\$23,000	\$23,000
	\$26,000	\$26,000
Third Contract	\$30,000	\$30,000
	\$35,000	\$35,000
	\$40,000	\$40,000
	\$45,000	\$45,000

221. According to the Minimum Fighter Pay document, between 85 and 90 percent of bouts in 2013-2014 involved compensation within the range given above (between \$8,000 and

528. Deposition of Sean Shelby, January 25, 2017, at 241:22-242:1.

529. *Id.* at 242:4-242:5.

530. *Id.* at 242:17-242:19. In addition, Zuffa engaged Mercer, a human resources consulting firm, to study its pay structure for Fighters and make recommendations on a framework for Fighter pay. *See* ZFL-1007379 (Mercer statement of work); ZFL-0557588 (Recap and Current Status Review showing timeline of project).

531. ZFL-0895314.

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\$45,000).⁵³² Approximately 30 percent of bouts paid a show amount at the \$8,000 minimum, while approximately 75 percent had show pay at or below the \$26,000 maximum specified for the second contract above.⁵³³ The Minimum Fighter Pay document also models the effect of raising the minimum from \$8,000 to various levels (\$10,000, \$12,000, and \$14,000), and demonstrates how this hypothetical adjustment would ripple through the pay schedule.⁵³⁴

222. Zuffa's Vice President of Strategy, Denitza Batchvarova, prepared the Minimum Fighter Pay document in response to a request from Lorenzo Fertitta and Lawrence Epstein to examine the financial impact to Zuffa of raising the minimum-Fighter compensation. In her deposition, Ms. Batchvarova stated:⁵³⁵

Our contracts at the time were if you sign with UFC, you were at a minimum getting 8,000 to show and 8,000 to win, going up by 2. Which means if you win, your next fight is 10,000 to show, 10,000 to win. If you win, your next fight is at 12,000 to show, 12,000 to win. And your last bout under your contract would be 14,000 to show and 14,000 to win. So essentially the question Lorenzo and Lawrence asked me was, 'What would happen if we moved the very first tier of pay to be 10,000 to pay, 10,000 to win or 12,000 and 14,000?' So this analysis was attempting to show the full year impact of if we moved all—if, essentially, we started implementing that strategy going forward, so if we moved to 10, 10 minimum, yeah.⁵³⁶

Ms. Batchvarova testified that she estimated this compensation structure after conferring with Sean Shelby and Joe Silva, who were in charge of negotiating Fighter compensation for the “bottom 80%” of Fighters.⁵³⁷

223. Record evidence indicates that formulaic pay scale practices extended even to top performers. According to Ms. Batchvarova, factors determining compensation for the top 20 percent of Fighters included “current compensation,” what “other athletes on our roster ...are

⁵³² ZFL-0895314, 315.

⁵³³ *Id.*

⁵³⁴ ZFL-0895314, 316-317.

⁵³⁵ Deposition of Denitza Batchvarova, January 25, 2017, at 37:8-19.

⁵³⁶ *Id.* at 38:11-39:1.

⁵³⁷ *Id.* at 40:9-11, 66:8-18.

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getting paid;” and “how popular the athlete is;” this indicates that even the highest paid athletes were subject to structured compensation.⁵³⁸ After Roy Nelson’s manager turned down a contract offer in May 2013, Lorenzo Fertitta wrote “I offered 9 fights 125+50 for regular bout, 500 flat for title fight, 500 plus ppv if defending. If ppv does 600k buys he makes 1.1m. Very fair offer. I feel like if we counter the 125+50 we start to screw up the *pay scale for [championship] contenders[.]*”⁵³⁹

224. There is evidence that even discretionary bonus compensation was formulaic. A February 2015 presentation indicates that there were established ranges for bonuses depending on the outcome of the bout, whether or not the bout is a main event or a title challenge or defense.⁵⁴⁰ The same document clarifies that “[w]ith a few exceptions, discretionary bonuses are a significantly smaller part of the total compensation.”⁵⁴¹ Documentary evidence also indicates that the opportunity to earn a portion of PPV revenue was limited to defending champions.⁵⁴²

225. Record documents indicate that when Zuffa negotiated Fighter contracts, negotiations centered around the compensation of comparable Fighters based on weight class, number of prior bouts, record, and championships.⁵⁴³ Joe Silva testified that one of Zuffa’s goals in designing Fighter compensation is to “to make sure that comparable fighters with comparable

538. Batchvarova Dep. at 67:3-14.

539. ZFL-1897652 at 748 (emphasis added).

540. ZFL-0819451 at 54.

541. *Id.* at 53.

542. ZFL-1005485 (3/13/14 email from Sen Shelby to Silva, Fertitta, and Dana, noting “I can talk money all day but a PPV component as a challenger is a deal breaker.”).

543. *See, e.g.*, ZUF-00140642 (In May 2011, when an agent for one Fighter (Tiequan) sought to negotiate their contract, the negotiations centered around the contracts offered to other appropriate “benchmark” Fighters. Zuffa’s Sean Shelby pointed to another Fighter (Jose Aldo) who was champion in the same weight class and made equal (or less) purses at the same stage in his career); ZUF-00140700 (listing comparable Fighters and their compensation); ZFL-0997899 (12/5/2013 email from Long to Fertitta and Hendrick, copy to Epstein, discussing “Fighter Comps” for Glover Teixeira. “Please let me know if you want me to pull any additional fighter’s information for comparison.”).

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